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textile bulletin

FEBRUARY • 1957

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BPA NBP

NON-FLUID OIL
TRADE MARK REGISTERED

THE LEADING LOOM LUBRICANT

NON-FLUID OIL has been adopted as the standard loom lubricant by the majority of mills because its use enables them to secure greatest output of perfect goods.

NON-FLUID OIL prevents "oil spot" losses caused by dripping, leaking oil that gets on warps and woven goods. By providing dependable lubrication until completely used up, NON-FLUID OIL keeps looms in steady operation — increasing production and reducing maintenance costs by outlasting ordinary oils and thin greases many times.

Grades for oil can or pressure application. Write today for your free testing sample and instructive Bulletin T-20.

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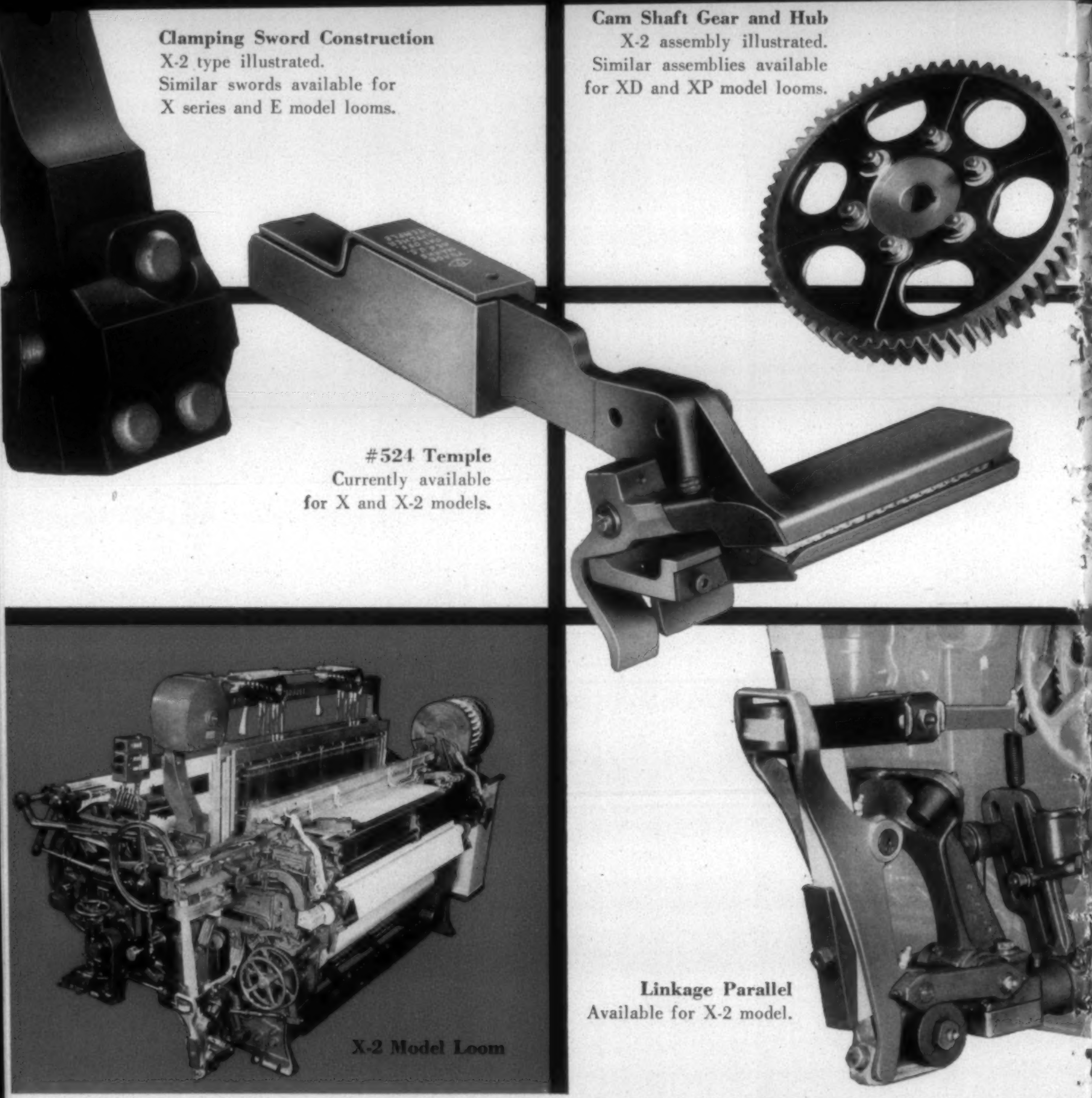
292 Madison Avenue, New York 17, New York
Southern District Manager: Lewis W. Thomason, Jr., Charlotte, N. C.
WAREHOUSES: Atlanta, Ga., Birmingham, Ala., Charlotte, N. C., Chicago, Ill., Columbus, Ga., Detroit, Mich., Greensboro, N. C., Greenville, S. C., Providence, R. I., St. Louis, Mo., Springfield, Mass.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.



Clamping Sword Construction
X-2 type illustrated.
Similar swords available for
X series and E model looms.

Cam Shaft Gear and Hub
X-2 assembly illustrated.
Similar assemblies available
for XD and XP model looms.

#524 Temple
Currently available
for X and X-2 models.

Linkage Parallel
Available for X-2 model.

Next to new looms . . .

Looms equipped with the latest mechanisms and improved repair parts, *designed and built by the original manufacturer*, will meet today's rugged performance requirements.

Draper improved repair parts and mechanisms — some of which are illustrated above — are designed to increase loom production, efficiency, and flexibility.

Lower maintenance costs and ease of application are additional benefits derived from the use of Draper repair parts and mechanisms.

Equipped with Draper improved repair parts and assemblies, your existing looms will be second only to *new Draper looms.*

DRAPER
CORPORATION

Hopedale, Mass. *Atlanta, Ga.* *Greensboro, N. C.* *Spartanburg, S. C.*

If it's made of paper-

SONOCO

HAS THE ANSWER

because . . .

SONOCO is constantly striving to improve present products and conducts a continuing program of research and development to meet the needs of an ever-changing textile industry.

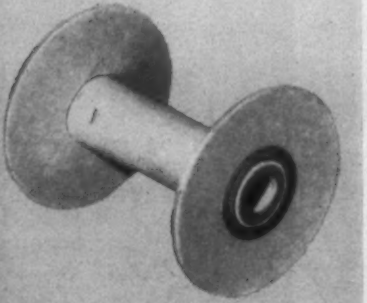
SONOCO paper products have become "standard of the world" wherever textiles are made . . . a "plus value" advantage which has resulted in industry-wide benefits since 1899.

TUBES

Spiral, convolute, parallel or drawn construction from ⅛" to 48" I.D. in any practical length and wall thickness — for every textile need! Available in colors, various surfaces, treated, impregnated, perforated, scored, notched, printed, with crimped or burnished ends.

CONES

Available with various surfaces, inside and outside printing, notches, scores, perforations and in many nose and tip designs. Lacquer tipping, dyed base and tip, and striped base can be furnished for yarn identification.



SPOOLS

A complete variety of standard sizes, or made to your order. Available with plain, printed and treated heads. Also standard and special tapered base single head thread spools in fibre and plastic.

Consult an experienced SONOCO sales-engineer or write us direct!

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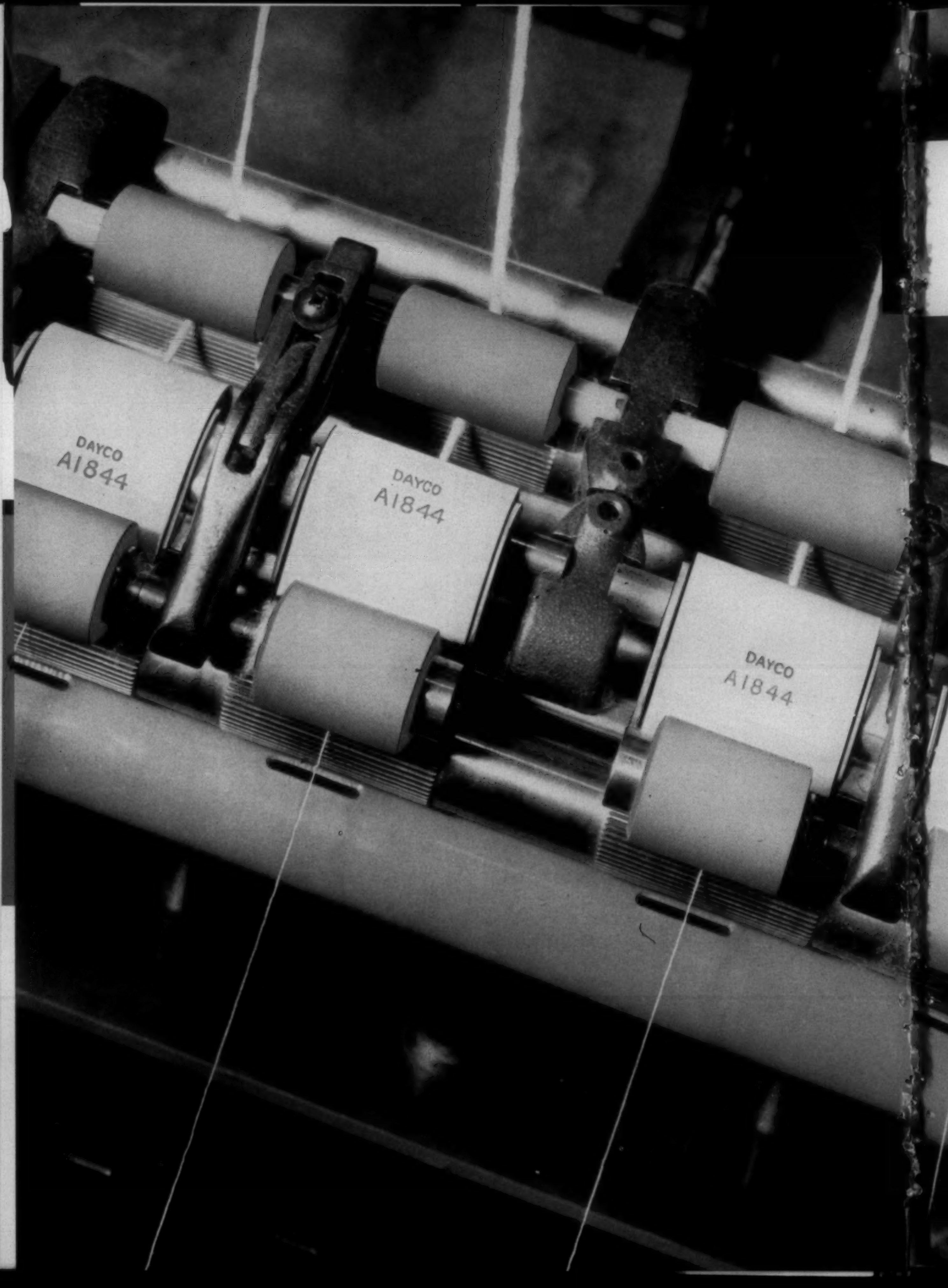
DAYCO
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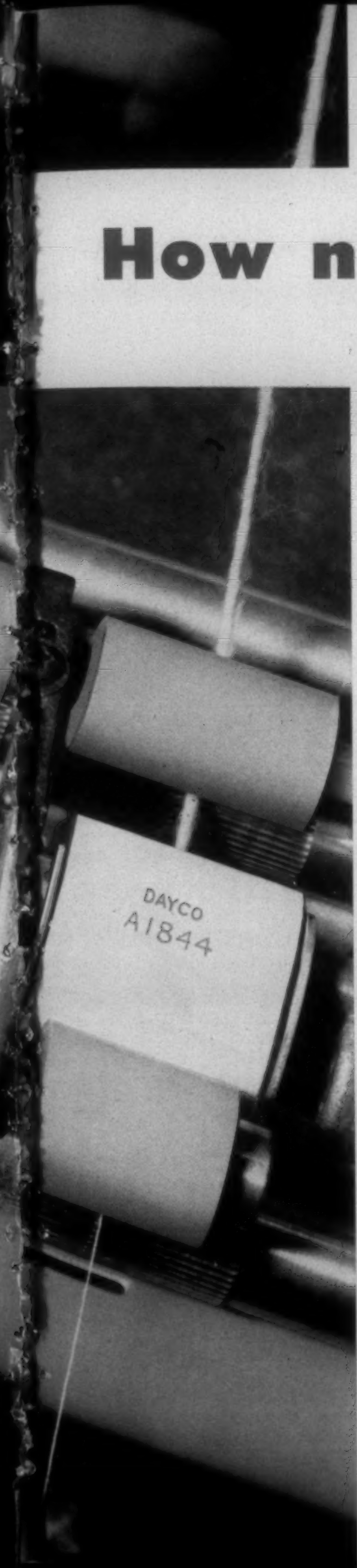


How new Dayco cots reduce lap-ups

caused by sweaty or gummy surface, static, and fiber adherence during shut downs.

The easiest way to reduce all four of the major causes of lap-ups is to install *all new* Dayco EW661 Cots. Here's why:

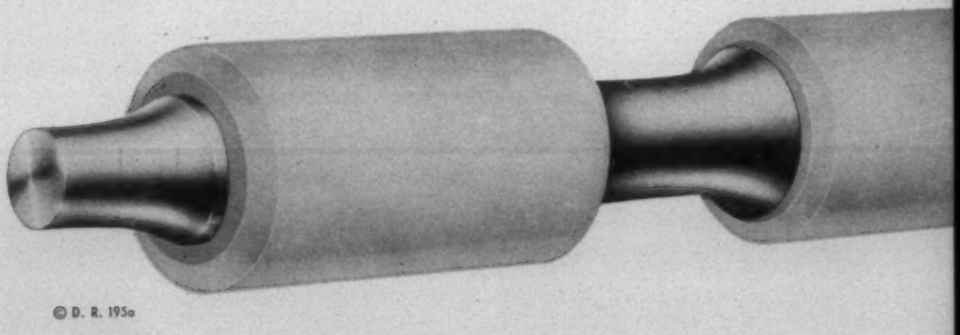
Some cots on hot, humid days collect a moisture film on their surface. Fibers adhere momentarily — and lap-ups slow production — cause inferior yarn quality. The new EVERGREEN compounds in Dayco EW661 Cots, however, resist fiber adherence—a major cause on lap-ups. It's as simple as that.

If the problem of gummy, sticky cots bothers you, new Dayco EW661 Cots are the answer. New EVERGREEN compounds always maintain their constantly correct, co-efficient of friction. They contain no substances to soften under the hottest, most humid conditions.

Frictional static build-up in ordinary cots attracts fibers to cause lap-ups. Dayco EW661 Cots, however, actually dissipate static electricity. Special compounding makes this possible, eliminating one more cause of lap-ups.

Finally, new Dayco EW661 Cots assure quick Monday morning starts. Compounded of materials which stubbornly resist chemicals or oils, Daycos are ready to instantly resume quality drafting after week-end shut down.

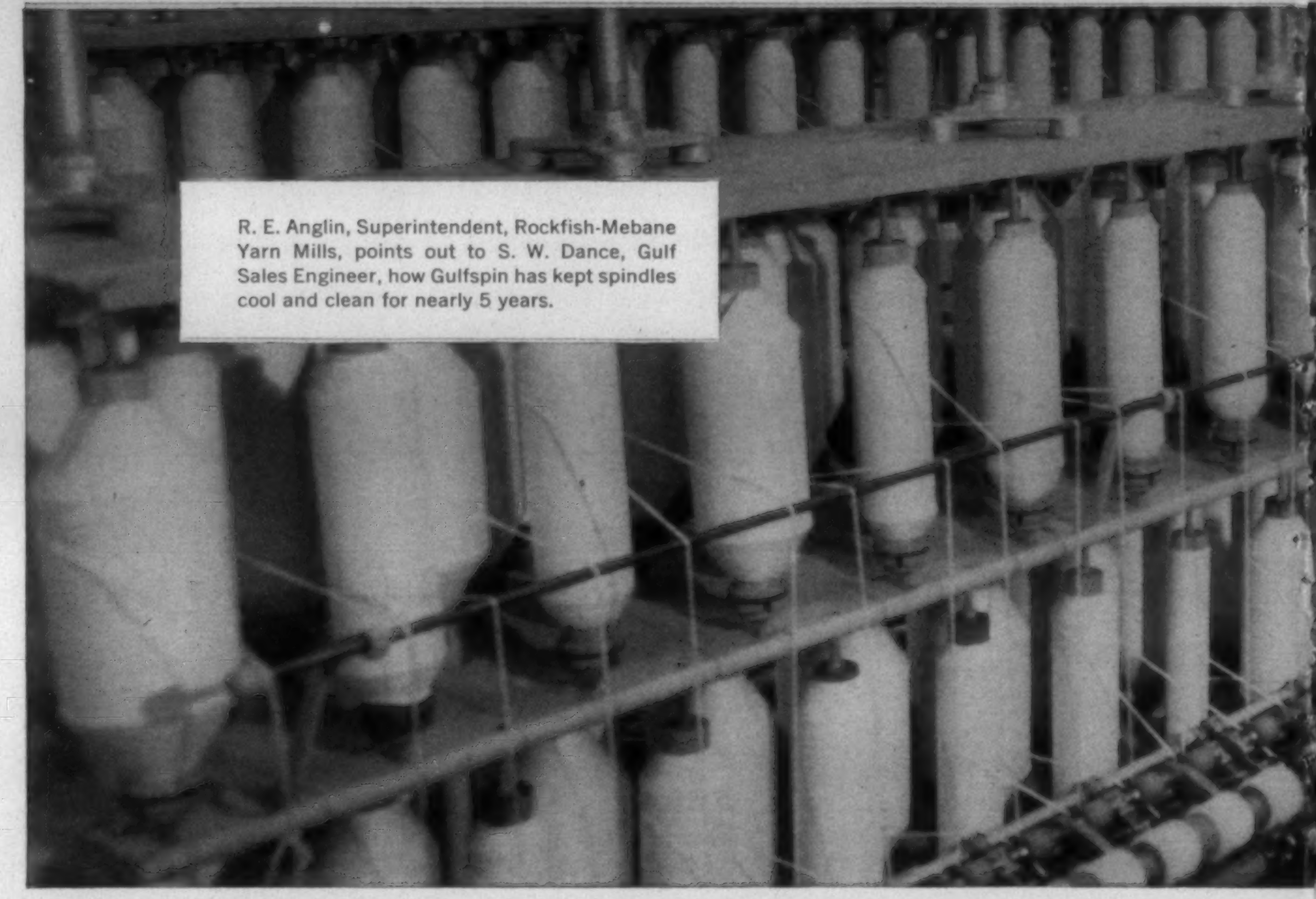
Complete elimination of lap-ups is an ideal situation which cots alone cannot assure. However, to move nearer spinning perfection, install new Dayco EW661 Cots on your frames. You'll increase yarn quality and production . . . reduce waste. For immediate facts write *The Dayton Rubber Company, Textile Division, 401 S. C. National Bank Bldg., Greenville, S. C.*



© D. R. 1950

Dayton Rubber

Dayco and Thorobred Products for better spinning and weaving.



R. E. Anglin, Superintendent, Rockfish-Mebane Yarn Mills, points out to S. W. Dance, Gulf Sales Engineer, how Gulfspin has kept spindles cool and clean for nearly 5 years.

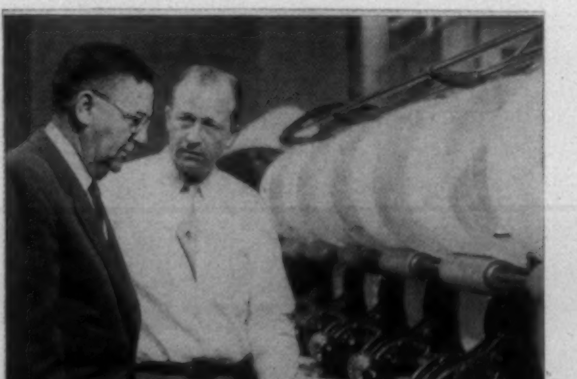
Rockfish-Mebane Yarn Mills cut

Rockfish-Mebane Yarn Mills have used Gulfspin for nearly 5 years to keep spindles performing efficiently. Gulfspin offers immediate savings in 3 different ways: cuts spindle cleaning costs; conserves power, and reduces maintenance costs.

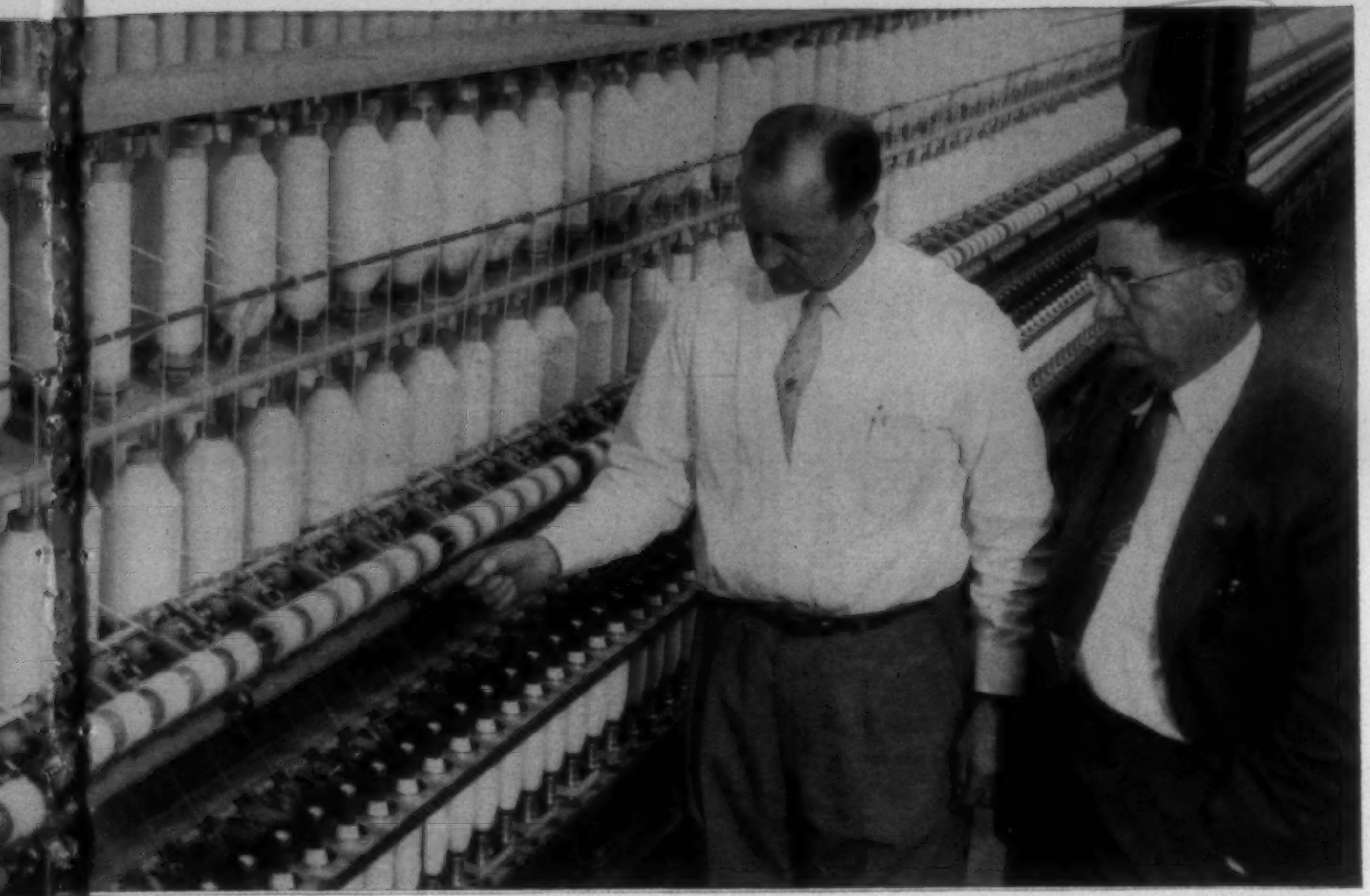
Gulfspin minimizes the formation of sludge, gum and resin that make spindles stick. With Gulfspin, spindles stay clean. You save money on cleaning costs.

Gulfspin viscosity stays the same over long periods of time—8 years in one recently checked mill! Because viscosity doesn't increase, you drive your spindles without wasting power. This means substantial savings in power costs.

Gulfspin also prevents rust, and has exceptionally high load-carrying ability. It



Gulf Harmony Oil is highly resistant to oxidation, lasts indefinitely. It is the oil used to lubricate gears and bearings on this Saco-Lowell Comber.



costs 3 ways with GULFSPIN

provides better protection against excessive wear. By using Gulfspin, you cut costs straight down the line.

Another great oil developed by Gulf and widely used at Rockfish-Mebane is Gulf Harmony. Gulf Harmony provides a tough lubricating film, resists oxidation, leaves no harmful deposits. Available in a wide range of viscosities.

For further information on either Gulfspin, Gulf Harmony Oil—or both—contact a Gulf Sales Engineer at your nearest Gulf office.

GULF OIL CORPORATION
1822 Gulf Building
Pittsburgh 30, Pennsylvania

THE FINEST PETROLEUM PRODUCTS FOR ALL YOUR NEEDS

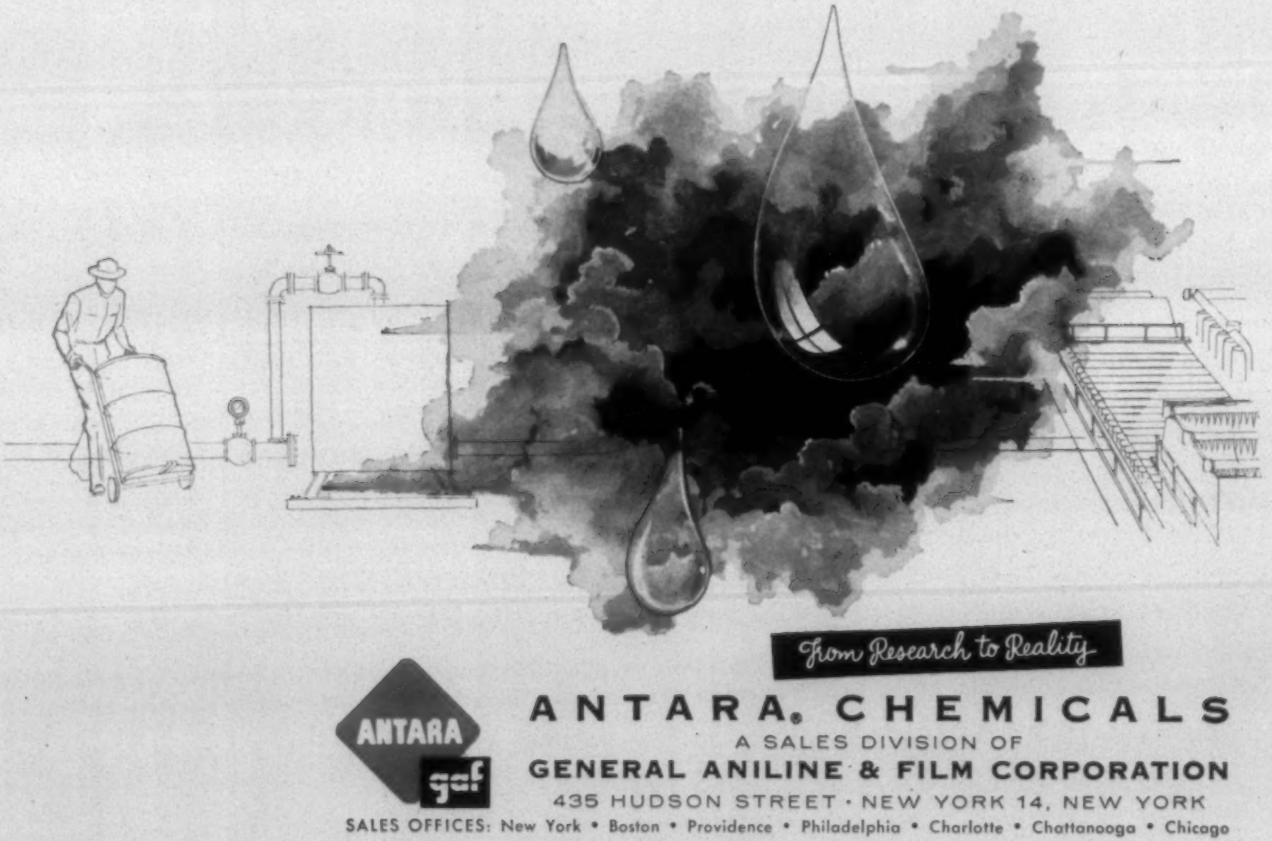
GULF

IGEPON® T-33

THE EASY-TO-HANDLE LIQUID DETERGENT

IGEPON T-33 is a clear, homogenous liquid which can be shipped and stored in bulk. It requires no dissolving and can be measured out in dippers or pails, or piped from storage tank to point of usage.

For top performance in textile washing, IGEPON T has long been the answer. With the introduction of the concentrated liquid form, IGEPON T-33, it is now tops in performance, economy and ease of handling. Ask your Antara representative how IGEPON T-33 can do a real job for you in wool, cotton, or synthetic fiber processing.



From Research to Reality

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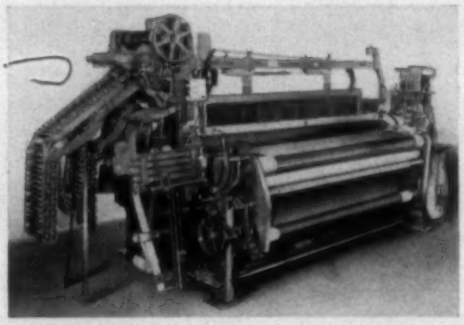
Portland, Ore. • San Francisco • Los Angeles. IN CANADA: Chemical Developments of Canada, Ltd., Montreal

Igepon T-33 manufactured by General Aniline & Film Corporation is sold outside the United States under the trademark "Fenopon T Liquid."



PLAID NEWS

is GLAD news for everybody

Yes, plaids are back . . . new and stimulating plaids. Just look at the retail ads and you'll see . . . *the lads are going for plaids!*

Here's another of those sudden changes that can catch a weaving mill "in a box" . . . unless that mill is ready and equipped with C&K's W-3 or W-3A fancy automatic box looms and the exclusive Select-A-Pic feature that makes it possible to weave automatically many pick-and-pick fabrics which would have to be woven *non-automatically* on any other type of weaving machinery . . . except C&K's New *PAPA* Loom . . . *about which you will soon hear plenty!*

Make no mistake about it . . . this is a fancy box-loom fabric market . . . and getting more so every day. So if you need the looms to go along with the boom . . . see C&K today!

CROMPTON & KNOWLES
Corporation
WORCESTER 1, MASSACHUSETTS, U. S. A.

CROMPTON & KNOWLES CORPORATION
C&K
WORCESTER, MASS. U.S.A.

CHARLOTTE, N. C. • PHILADELPHIA, PA. • ALLENTOWN, PA. Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I. • Crompton & Knowles of Canada Ltd., Montreal, Quebec

CUTLER-HAMMER THREE-STAR MOTOR CONTROL BRINGS PEAK PERFORMANCE TO COTTON CARDS

C-H 9599-H31
Across-the-Line
Starter Only
Cotton Card Control

Throughout the textile industry progressive mills are converting their cards from dangerous, cumbersome line shaft drives to modern, efficient, individual electrical drives. These modern card rooms are cleaner, safer and many times more productive. Consistently mill after mill specified C-H control while modernizing . . . knowing Cutler-Hammer Three-Star Card Control would assure them the dependability, safety and peak performance so vital.

Cutler-Hammer Three-Star Card Control is a complete control unit in a single lint-tight enclosure. Convenient pushbutton-control starts and stops the card in either direction. An externally operated reversing switch selects the direction of rotation . . . forward for carding, reverse for grinding; but for safety-sake the card cannot be reversed while running. The famous C-H eutectic alloy overload relay is your assurance of complete, dependable motor overload protection. Special sensing coils allow the motor to start the high inertia load, but will not permit the motor to operate on a damaging running-overload.

These magnetic, across-the-line starters are available in three types; starters only, fusible combination starters, and circuit breaker combination starters. All feature C-H time-tested vertical contacts which never require maintenance with all normal use. The fusible combination starter includes a contactor type disconnect switch with an externally operated handle. The circuit breaker combination starter also includes an external operating handle which can manually trip the breaker. Multiple padlocking of the operating handle in the "off" position guarantees safe card maintenance...no unauthorized operation.

For complete information see your Authorized Cutler-Hammer Distributor or write today on your company's letterhead for the new Pub. EL-115, Cutler-Hammer Motor Control for Textile Machines. CUTLER-HAMMER, Inc., 1455 St. Paul Ave., Milwaukee 1, Wis.

INSTALLS EASIER—WORKS BETTER—LASTS LONGER C-H Three-Star Card Control is perfect for every cotton card. Select either the fusible or circuit breaker type combination card control, or starter only.

CUTLER-HAMMER
★ ★ ★
MOTOR CONTROL
C-H

10 billion yards to dye...

so few men to do it!

Fewer than 5,000 chemists and dyers combine art, science and industry all in one to add the important appeal of color to our tremendous annual output of textiles.

The magnitude and complexity of the job emphasize the vital function of the dyestuff maker whose responsibility goes beyond the simple sale of color by the pound.

National meets this responsibility with a line of nearly a thousand dyestuffs. We anticipate your needs with stocks of dyes in current demand, nearby and ready for fast shipment.

Ten application service labs coast-to-coast handle match requests speedily. Our representatives are technically trained to render practical help with application problems in the mill.

Our Color Standardization Control Laboratory assures the uniformity of every shipment.

And our multimillion-dollar Buffalo Research and Engineering Center works constantly to improve application methods and develop better dyes.

When you buy dyestuffs from National Aniline you enlist vast technical resources and specialized experience that are extremely valuable—and included in the price you pay for dyestuffs! That's why it's always good business to do business with National.

NATIONAL ANILINE DIVISION
ALLIED CHEMICAL & DYE CORPORATION
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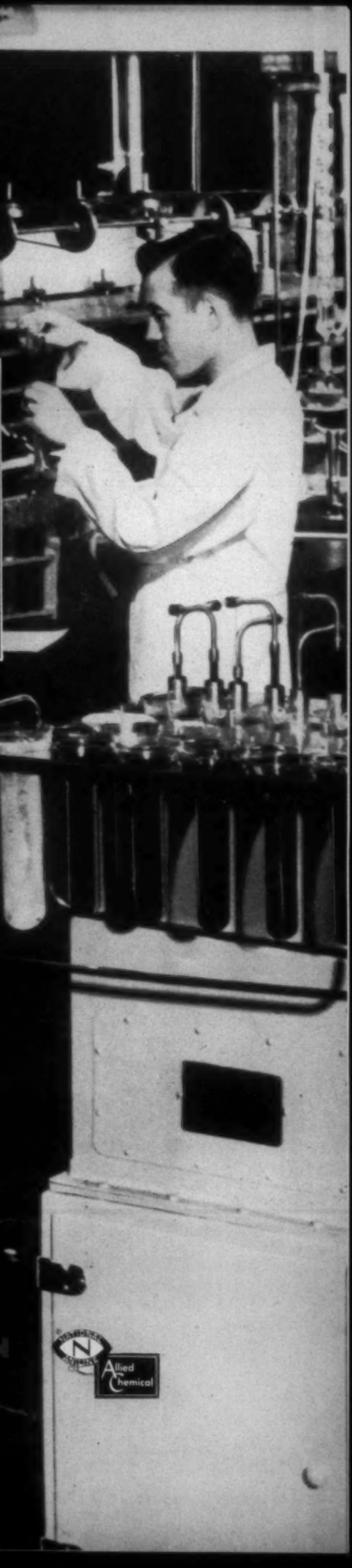
Boston Providence Charlotte Chicago San Francisco Los Angeles Portland, Ore. Greensboro
Philadelphia Richmond Akron Atlanta Columbus, Ga. New Orleans Chattanooga Toronto

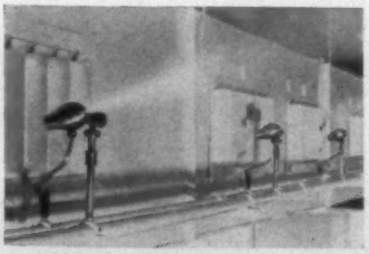


Parks-Cramer®

Central Station Air Conditioning

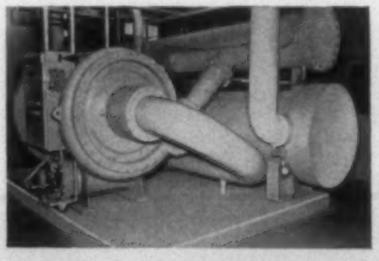
When you buy Parks-Cramer Central Station Air Conditioning you buy

- ✓ A system based on 52 years' experience in designing, manufacturing and installing air conditioning and humidification for textile mills.
- ✓ One or more central air washer units of superior performance and longevity. Here air is cooled or heated, humidified or dehumidified, washed and otherwise purified depending upon requirements. Refrigeration and electrostatic filters included when needed.
- ✓ Uniform air distribution to every department of the mill under close, reliable automatic control.



Gradumatic humidifiers are used at duct outlets where conditions dictate. Fine spray and automatically varied evaporative output make Gradumatics ideal.

Rotary tank screen filters water before it is pumped to spray nozzles. Performance of washer improved, maintenance greatly reduced.



Standard refrigerating equipment selected and engineered to suit each individual installation. Trane CenTraVac here illustrated.

Certified Climate Psychrostat for zone control of room conditions.

Rugged, simple, dependable.

Parks-Cramer Company

Certified Climate Systems since 1904

FITCHBURG, MASS. — CHARLOTTE, N. C. — ATLANTA, GA.

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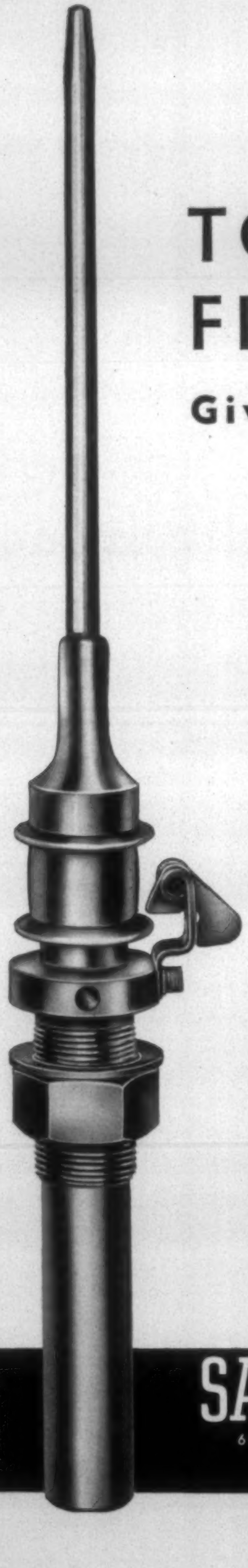


SACO-LOWELL

TOP SUSPENSION FILLING SPINDLES

Give these proven advantages . . .

1 The top suspension drive produces a smoother running assembly because of the perfect balance of the moving parts.

2 There is a definite improvement in yarn quality as a result of uniform tension at all stages of the doff.

3 Higher spindle speeds and consequently more production are inherent advantages of the top suspension drive since all forces acting on the bobbin are in a high degree of balance.

4 There is an increase in the package content varying from 2½% to 7½% due to the tighter wind resulting from more uniform tension.

5 Anti-Friction roller bearings last longer and require less oil.

6 Savings in power consumption due to smoother operation.

7 Savings in labor costs as a result of longer lubrication cycles.

8 The absence of oil creepage increases the life of the tape and reduces to a noticeable extent the spoilage of yarn due to oil stains.

Now is the time to better your operations by replacing your obsolete filling spindles with this new Saco-Lowell unit. Under ordinary conditions the advantages accruing from the increase in production, the improvement in quality, and the overall efficiency of the spinning frame, will surely repay the entire capital investment.

SACO-LOWELL-SHOPS

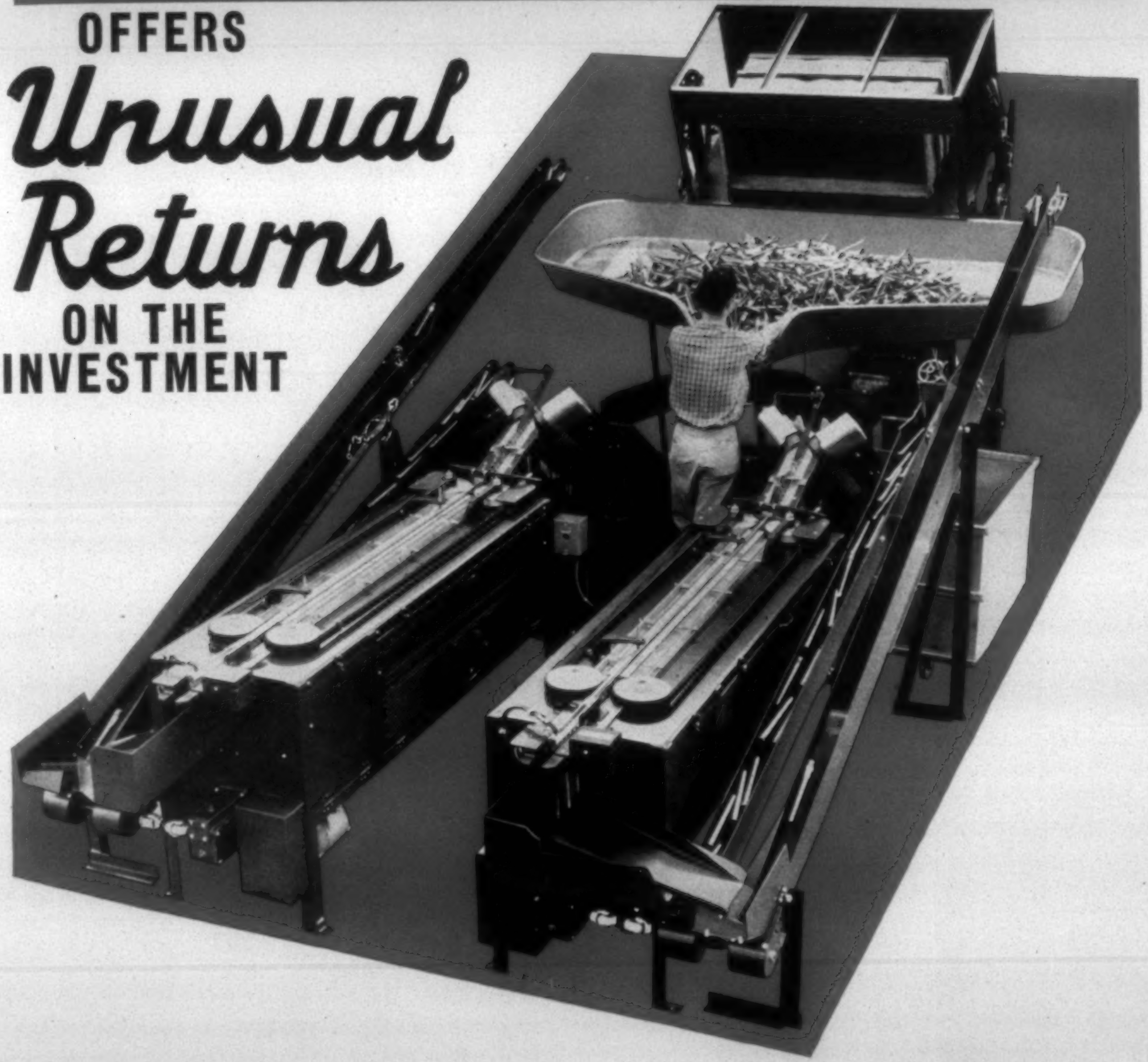
60 BATTERYMARCH STREET, BOSTON 10, MASS

Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N.C.:

Sales Offices CHARLOTTE · GREENSBORO · GREENVILLE · ATLANTA

Terrell's COMPLETE BOBBIN CLEANING AND HANDLING SYSTEM

OFFERS *Unusual Returns* ON THE INVESTMENT



BOBBIN BOX HOIST lifts and dumps full boxes of uncleaned bobbins at the machine feeding level. TERMACO BOBBIN FEEDERS make it possible for one operator to run two bobbin cleaning machines. TYPE L BOBBIN CLEANING MACHINES efficiently remove feeler waste without possibility of damage to bobbin or bobbin finish. TERMACO BOBBIN SELECTORS separate cleaned and uncleaned bobbins. TERMACO CONVEYOR SYSTEMS carry cleaned bobbins to storage bins, winder hoppers, or any desired location.

If you would like more detailed information please contact——————

THE

Terrell

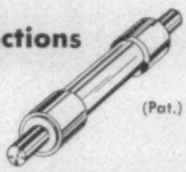
MACHINE COMPANY, INC.

CHARLOTTE, N. C., U. S. A.

Ideal is the "Jet Propulsion" of Drawing

Ideal High Speed Ball Bearing Drawing Equipment* is as different from ordinary drawing equipment as a jet engine is from the propellor type. Like the jet, it provides better, safer, and smoother operation at approximately twice the speed of ordinary equipment. Here are some of the features which enable Ideal equipment to produce high quality drawing at sustained speeds of 250 to 350 feet per minute.

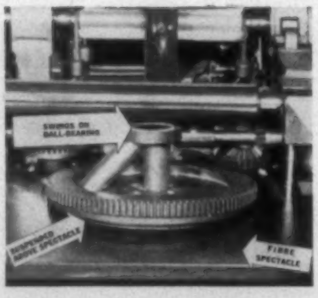
Ideal Ball Bearing Spacing Sections



(Pat.)

These are independent of the rolls . . . do not revolve . . . transmit no resistance . . . never wear to throw the rolls out of alignment . . . and provide free-floating top roll action which automatically evens out thick and thin places in the drawing sliver. They positively prevent cutting, bruising, or damage of any kind to stock.

Ideal High Speed Coiler Tube Mechanism



This is suspended *above* the spectacle by means of a ball bearing ring *at the top* and swings lightly and freely on this frictionless bearing. Ball bearing coiler shaft, studs, and upright shaft also contribute to smooth "jet propulsion" action at any speed you wish to attain. Fibre gears run noiselessly and dissipate heat.

New Ideal Knock-off Action

Stops the frame instantly at the first sign of a tube gear choke-up. Eliminates the fibre breakage and danger of machine damage caused by formation of hard masses of packed fibre.

You can get Ideal jet-like speed on new Ideal Frames or in replacements on your present frames. Write for full information today.

* Patent Nos. 2,610,363; 2,490,544; 2,412,357. Other patents pending.

Ideal **Industries, Inc.**
Bessemer City, N. C.

•SANFORIZED•

TRADEMARK

...known, loved, trusted
the world over...

Used in 1956 to a greater extent... by more textile leaders ...to help build their profits...than in any other year in textile history

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BRADFORD COTTON MILLS LIMITED	"Bradmil House," Camperdown, Sydney, N.S.W.

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TEINTURES ET APPRETS DE L'ESCAUT S.A.	Destelbergen

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LAINE FRERES	Rouen
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SOCIETE ANONYME BLANCHISSERIE & TEINTURERIE DE CAUDRY	Ile Saint-Denis
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SOCIETE GENERALE DES FILATURES ET TISSAGES DE FLERS	Flers
SOCIETE DES TEXTILES FRANCAIS	Paris
TEXTILE DU VERMANDOIS	Laval

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Used in 1956 *to a greater extent . . . by more textile leaders . . .*

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FRENCH MOROCCO

INDUSTRIE COTONNIERE DE MAROC "ICOMA" S.A........Fédala
LARCHER & CIE..Casablanca

FRENCH WEST AFRICA

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AURORA BLEACHERY, INC.	Aurora, Ill.
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AVONDALE MILLS	Pell City, Ala.
AVONDALE MILLS	Sylacauga, Ala.
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BRADFORD DYEING ASSOCIATION (USA)	Westerly, R. I.
BURLINGTON INDUSTRIES, INC., Cramerton Mills Division	Cramerton, N.C.
BURLINGTON INDUSTRIES, INC., Mooresville Mills Division	Mooresville, N. C.
BURLINGTON INDUSTRIES, INC., Altavista Finishing Plant	Hurt, Va.
CANNON MILLS COMPANY	Kannapolis, N. C.
CANTON COTTON MILLS	Canton, Ga.
CHICOPEE MANUFACTURING CORPORATION	Chicopee Falls, Mass.
CHICOPEE MANUFACTURING CORPORATION	Gainesville, Ga.
CLEARWATER FINISHING PLANT	Clearwater, S. C.
COLD SPRING BLEACHERY, INC.	Yardley, Pa.
COMMANDER MILLS, INC.	Sand Springs, Okla.
CONE MILLS CORPORATION–Carlisle Plant	Carlisle, S. C.
CONE MILLS CORPORATION–Print Works Plant	Greensboro, N. C.
CONE MILLS CORPORATION–Proximity Plant	Greensboro, N. C.
CONE MILLS CORPORATION–Revolution Division	Greensboro, N. C.
CONE MILLS CORPORATION–Salisbury Plant	Salisbury, N. C.
CONE MILLS CORPORATION—White Oak Plant	Greensboro, N. C.
COWIKEE MILLS	Eufaula, Ala.
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CRANSTON PRINT WORKS COMPANY	Webster, Mass.
CRANSTON PRINT WORKS COMPANY	Fletcher, N. C.
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CRYSTAL SPRINGS BLEACHERY	Chickamauga, Ga.
DANIELSON FINISHING CO., INC.	Danielson, Conn.
DAN RIVER MILLS, INCORPORATED	Danville, Va.
DAN RIVER MILLS, INCORPORATED–Alabama Mills Div.	Wetumpka, Ala.
DEFIANCE BLEACHERY	Barrowsville, Mass.
DEMPSEY BLEACHERY & DYE WORKS CORP.	Pawtucket, R. I.
ERWIN MILLS INCORPORATED	Cooleemee, N. C.
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ERWIN MILLS INCORPORATED	Erwin, N. C.
ERWIN MILLS INCORPORATED	Stonewall, Miss.
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FAIRFOREST COMPANY—Fairforest Fin. Div.	Spartanburg, S. C.
FIELDCREST MILLS, INC.	Spray, N. C.
FRUIT OF THE LOOM, INC.–Pontiac Finishing Plant	Pontiac, R. I.
GLENLYON PRINT WORKS	Phillipsdale, R. I.
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GOSSETT DYEING AND FINISHING PLANT– (The Abney Mills)	Anderson, S. C.
GRANITEVILLE COMPANY–Gregg Division	Graniteville, S. C.
GRANITEVILLE COMPANY–Sibley-Enterprise Division	Augusta, Ga.
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HAMPTON MILLS, INC.	Easthampton, Mass.
HIGHLAND PARK MANUFACTURING CO.	Charlotte, N. C.
HOHOKUS BLEACHERY, INC.	Ho-ho-kus, N. J.
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THE JEFFERSON MILLS, INC.	Jefferson, Ga.
THE KENDALL COMPANY	Walpole, Mass.
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LOWELL BLEACHERY, INC.	St. Louis, Mo.
LOWELL BLEACHERY SOUTH	Griffin, Ga.
LYMAN PRINTING & FINISHING CO., INC., Subsidiary of M. Lowenstein & Sons, Inc.	Lyman, S. C.
ANDREW Y. MICHIE & SONS CO.	Philadelphia, Pa.
THE MILLVILLE MANUFACTURING CO.	Millville, N. J.
NASHUA FINISHING CO., INC.	Nashua, N. H.
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NEWBURGH PRINTING & FINISHING COMPANY, INC.	Newburgh, N. Y.
NORTH CAROLINA FINISHING COMPANY	Salisbury, N. C.
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PACOLET MANUFACTURING CO.	New Holland, Ga.
PEPPERELL MANUFACTURING COMPANY	Lewiston, Me.
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PEPPERELL MANUFACTURING CO.–Alabama Division	Pepperell, Ala.
PEQUOT FINISHING PLANT, Division Indian Head Mills, Inc.	Whitney, S. C.
PILOT MILLS CO.	Raleigh, N. C.
PLYMOUTH FINISHING CO., INC.	Fall River, Mass.
PURITAN LOOMS, INCORPORATED	Philadelphia, Pa.
QUEEN PRINT WORKS, INC.	Providence, R. I.
THE RANDOLPH MILLS, INC.	Franklinville, N. C.
RENFREW BLEACHERY (The Abney Mills)	Travellers Rest, S. C.
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RIEGEL TEXTILE CORPORATION–Trion Division	Trion, Ga.
THE ROBERTSON BLEACHERY & DYE WORKS, INC.	New Milford, Conn.
ROCK HILL PRINTING & FINISHING CO.	Rock Hill, S. C.
THE ROCKLAND BLEACH & DYE WORKS CO.	Baltimore, Md.
THE RUSSELL MFG. CO., INC.	Alexander City, Ala.
SAYLES-BILTMORE BLEACHERIES, INC.	Biltmore, N. C.
SAYLES FINISHING PLANTS, INC.	Saylesville, R. I.
PHILIP L. SHEERR & SONS	Frankford, Philadelphia, Pa.
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THE SPRINGS COTTON MILLS (Grace Bleachery)	Lancaster, S. C.
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SUMMERDALE DYE WORKS	Holmesburg, Phila., Pa.
SWIFT MANUFACTURING COMPANY	Columbus, Ga.
TEXAS TEXTILE MILLS, INC.	McKinney, Texas
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THOMASTON MILLS–Bleachery Div.	Thomaston, Ga.
UNION BLEACHERY	Greenville, S. C.
USF–ASPINOOK Finishing Division of Gera Corporation	Hartsville, S. C.
USF–ASPINOOK Finishing Division of Gera Corporation	Norwich, Conn.
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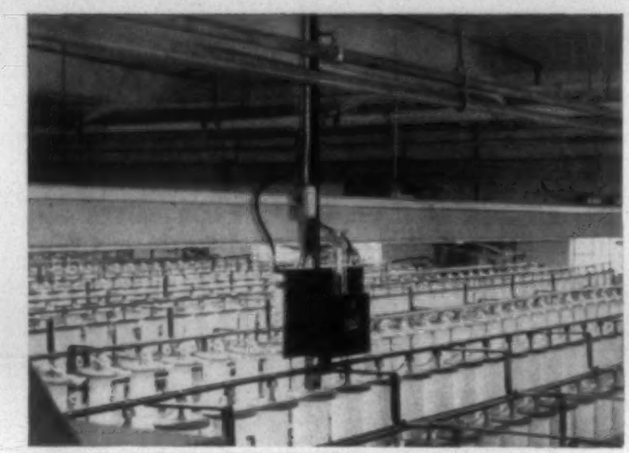
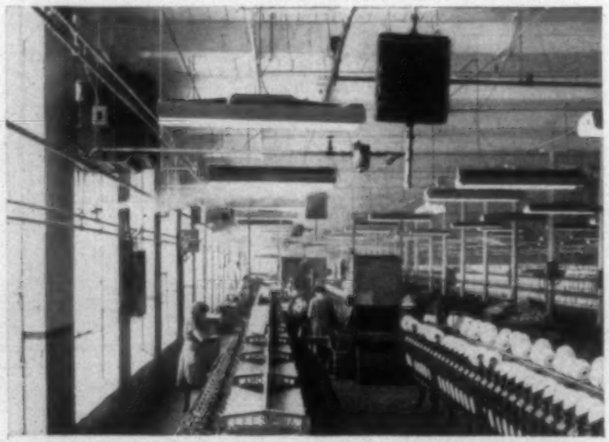


AMCO Humidification System installed at Caron Spinning Company, Robesonia, Pa. The highly sensitive AMCO Cyclestat Control holds humidity within narrow limits.



AMCO Evaporative Cooling System in Texas Textile Mills, McKinney, Texas. Note window units which control mixture of fresh and recirculated air.

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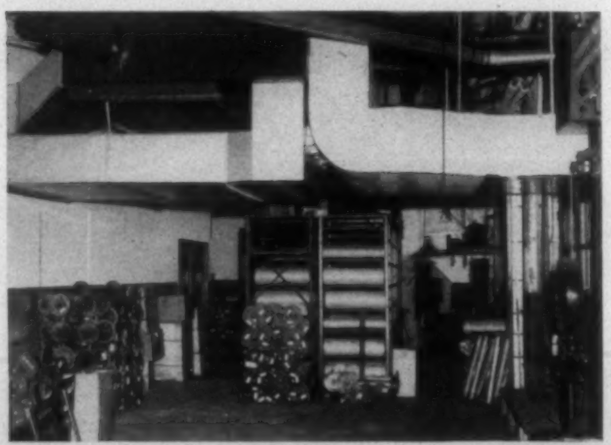
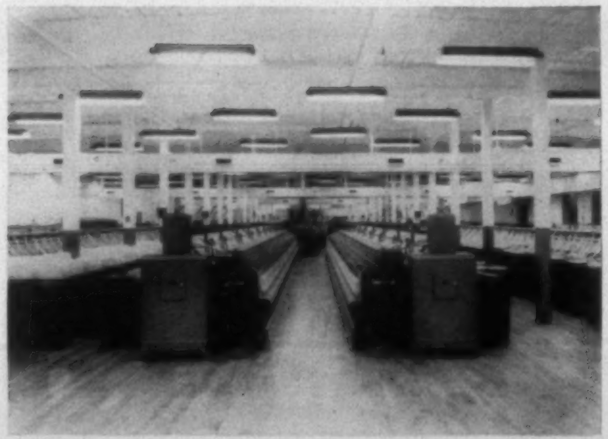
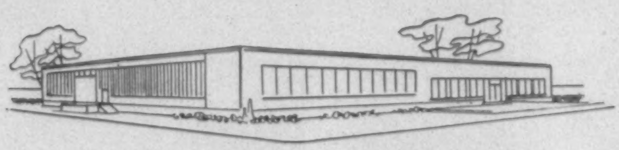


AMCO Unit Dry-Duct System at The Windsor Manufacturing Company, Philadelphia, Pa. The entire unit is installed overhead out of the way.



AMCO Central Station Air Conditioning in the Roving Dept., Highland Park Mills, Charlotte, N. C. This is AMCO's highly efficient split-system.



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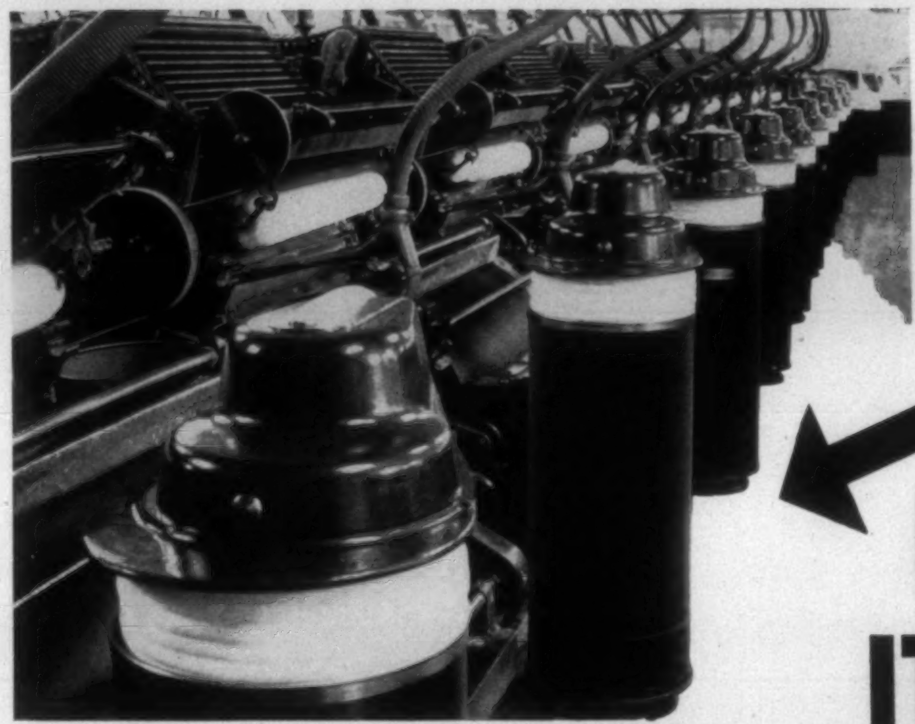

The above photograph shows a recent installation of the Gossett economy change-over, equipped with Gossett's big new coilers with anti-friction bearings. Size of coiler shown is 16" x 36".

HERE IT IS!

Gossett's BIG Coiler

Gossett Machine Works pioneered the big coiler conversion technique. Now Gossett master technicians have developed a big new coiler . . . bigger and better than ever.

The Gossett Machine Works has been serving textile mills for more than a quarter of a century. So it is not surprising that Gossett technicians have developed a practical, sure way to greatly increase the amount of sliver per can . . . . . and do it at a moderate cost. In fact, more than 100 Southern mills have already installed a complete Gossett coiler conversion. Upon written request, we will be glad to give you the names of these mills.

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Get Cost of the Gossett Economy Package on Conversion

We will be glad to give you the cost of a change-over, using our economy package plan which

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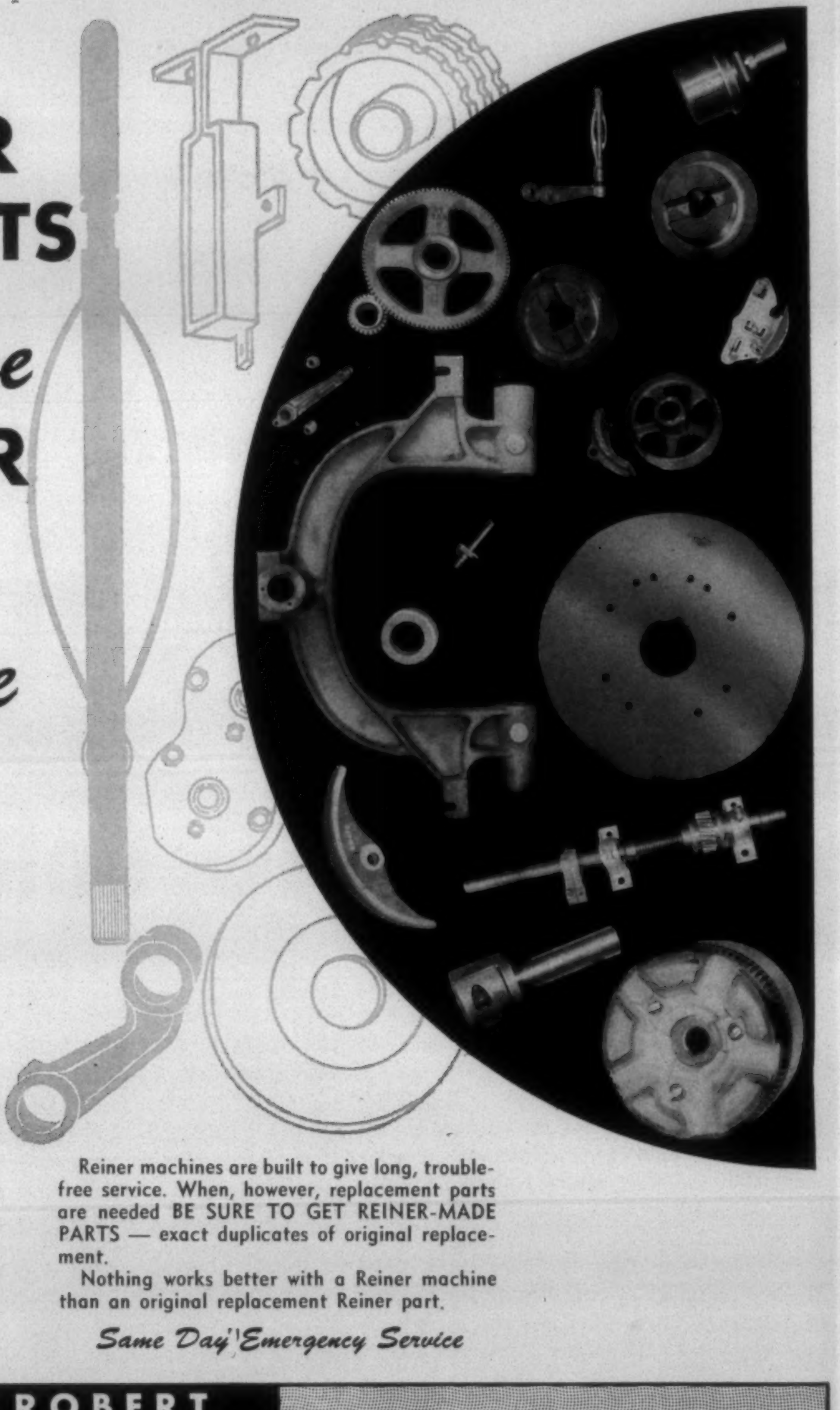

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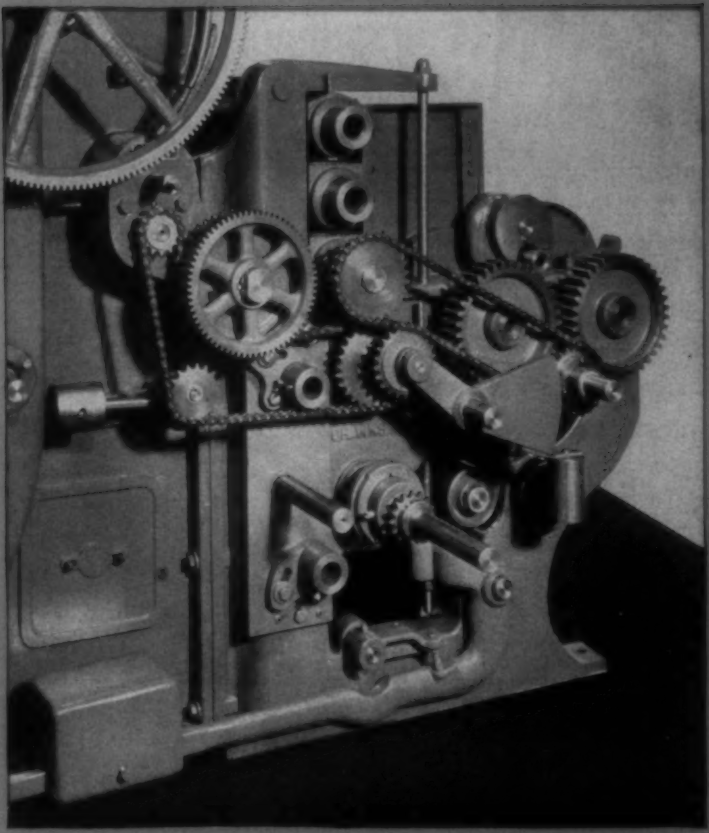

- The chain drive to the draw-rolls and screens permits better draft control between the screens and the draw-rolls and the draw-rolls and the calender rolls. The old gearing was rather inflexible. The new chain drive is very flexible, and can give much smaller increments of change than were possible with the old drive.

The chain drive to the fluted calender rolls is also highly flexible and permits very accurate maintenance of the desired draft between the vertical rolls and the fluted rolls so that any slack can be kept out of the lap, and firmer more compact laps wound on the lap pin.

This chain drive to the fluted rolls stops those rolls while the picker is being doffed. This prevents injury to the lap by unnecessarily turning it while no cotton is being added. The lap is broken on top of the back fluted calender roll, and remains threaded up under the press roll. This eliminates the heavy place in the lap usually found next to the pin, and it also speeds up the doffing time, because the lap is only two inches from the pin when the picker is started.

AldricH MachinE WorkS
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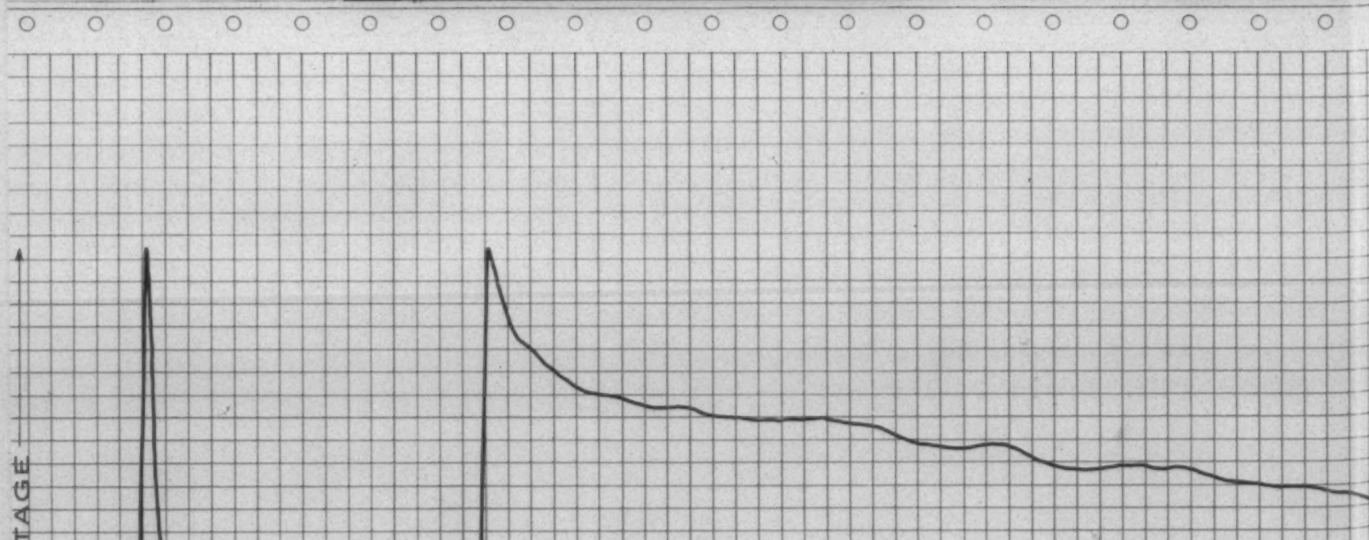
Here's proof that

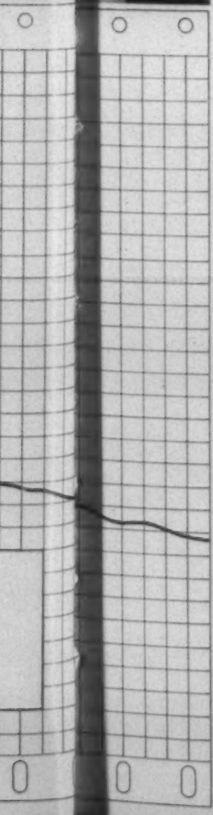


A PERMANENT RECORD from the automatic recorder . . . showing how Armstrong anti-static cot (curve 'A') discharges the electrical charge almost instantaneously. Curve 'B' shows how a conventional cot takes many times longer.

AN ELECTRICAL CHARGE is stored in a condenser by connecting its terminals briefly to a six-volt battery. The cot is placed on needle-point contacts to which the condenser is wired . . . providing a path for the electricity. A sensitive recorder automatically records the rate of discharge.

at new Armstrong anti-static cots help

PREVENT LAPPING, REDUCE WASTE



If you are having trouble with front roll laps and excessive clearer waste caused by static, you'll be interested in the dramatic laboratory test shown here.

This test measures the rate at which the new Armstrong anti-static cots carry off an electrical charge. It has been proved that this accurately indicates the ability of the cots to discharge static electricity.

As mill men know, static is becoming an increasingly serious problem. The reason is the growing use of synthetic yarns, the trend toward non-metallic cap bars, and the elimination of other metal-to-metal contacts in modern frames.

Armstrong anti-static cots help to eliminate lapping conditions caused by static because they contain certain ingredients which enable the cot to carry off static charges continuously. This prevents such charges from accumulating on the yarn or cots to the point where they can cause trouble.

Extensive mill installations of these new compounds indicate that they practically eliminate lapping caused by static. In many cases, they also significantly reduce waste.

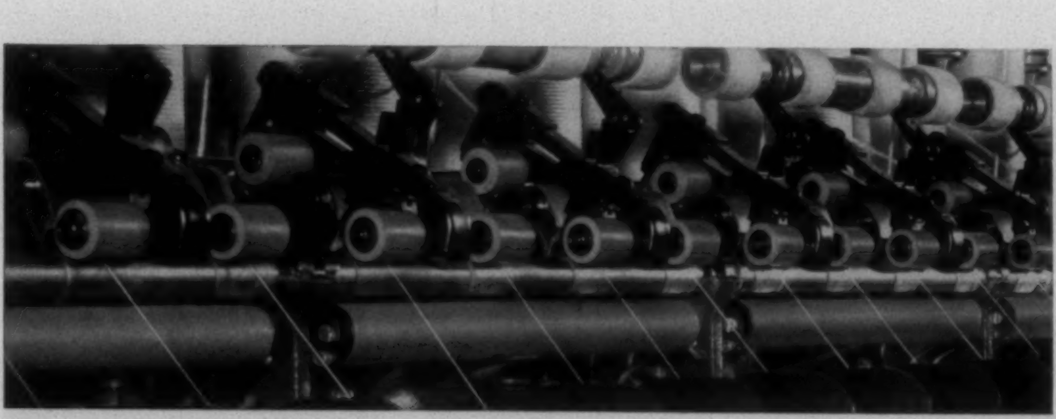
Like all Armstrong Accotex® Cots, these new roll coverings will give years of service. Rebuffing (rarely necessary more than once a year) doesn't impair their built-in anti-static properties.

Together with Accotex J-490 Cots, the new Armstrong anti-static materials form a complete group of cots which will control lapping on spinning and cardroom frames. Where high static aggravates the lapping problem, these two new compounds are recommended: Accotex NC-762 for frames with flat clearers and Accotex NO-764 for frames equipped with revolving clearers.

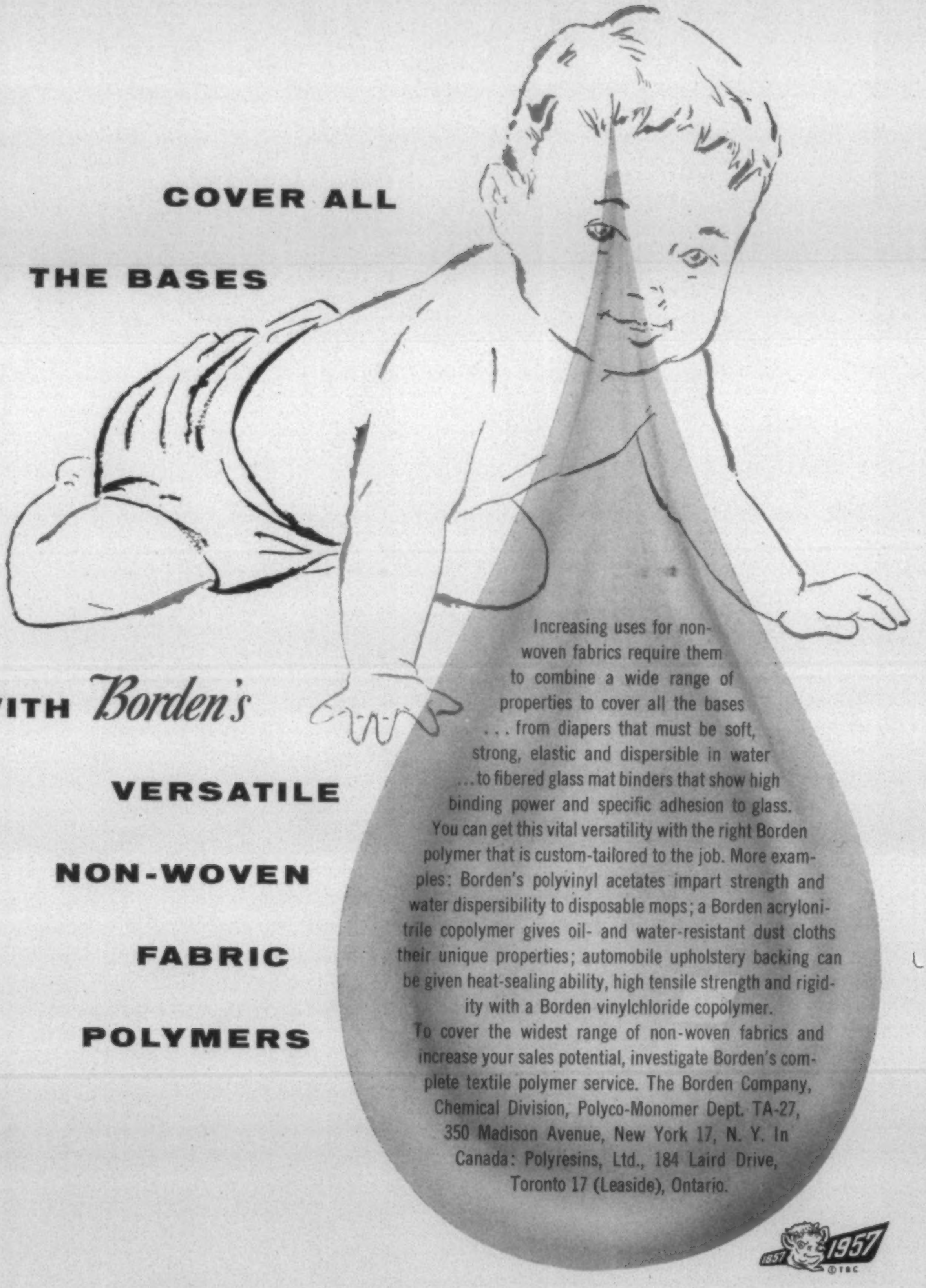
Be sure to write for more information on these anti-static cots. Address Armstrong Cork Company, Industrial Division, 6502 Davis Avenue, Lancaster, Pennsylvania.

Armstrong ACCOTEX COTS

. . . used wherever performance counts



NOT A LAP-UP IN SIGHT . . . on this modern frame equipped with Armstrong anti-static cots. Even when spinning synthetic fibers, these specially compounded cots carry off the static electricity before it can create a lapping problem. In many cases, these cots also help reduce waste.



COVER ALL THE BASES WITH *Borden's* VERSATILE NON-WOVEN FABRIC POLYMERS

Increasing uses for non-woven fabrics require them to combine a wide range of properties to cover all the bases . . . from diapers that must be soft, strong, elastic and dispersible in water . . . to fibered glass mat binders that show high binding power and specific adhesion to glass.

You can get this vital versatility with the right Borden polymer that is custom-tailored to the job. More examples: Borden's polyvinyl acetates impart strength and water dispersibility to disposable mops; a Borden acrylonitrile copolymer gives oil- and water-resistant dust cloths their unique properties; automobile upholstery backing can be given heat-sealing ability, high tensile strength and rigidity with a Borden vinylchloride copolymer.

To cover the widest range of non-woven fabrics and increase your sales potential, investigate Borden's complete textile polymer service. The Borden Company, Chemical Division, Polyco-Monomer Dept. TA-27, 350 Madison Avenue, New York 17, N. Y. In Canada: Polyresins, Ltd., 184 Laird Drive, Toronto 17 (Leaside), Ontario.

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Specifically developed for use in automotive fabrics, upholstery and drapery materials, mattress ticking, and hosiery, FAIRTEX Yarns with Metallized Mylar* are highly heat resistant, can be safely washed, drycleaned or scoured and do not tarnish.

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For economy and efficiency, start using FAIRTEX Yarns with Metallized Mylar* *now* with cotton, wool, silk, linen or synthetics. You get greater yield per pound with smoother, more pliable and more uniform FAIRTEX Yarns.

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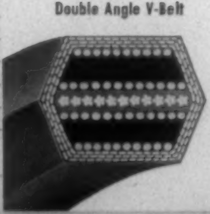
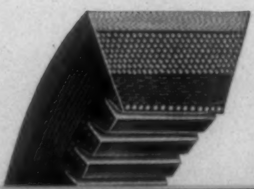
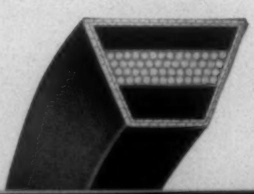


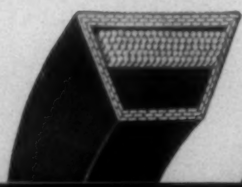
Dayton
Cog-Belt



Dayton Back
Side Idler V-Belt



Dayton
Thorobred V-Belt



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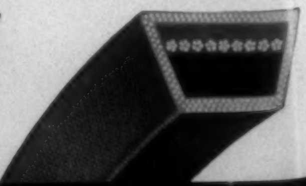
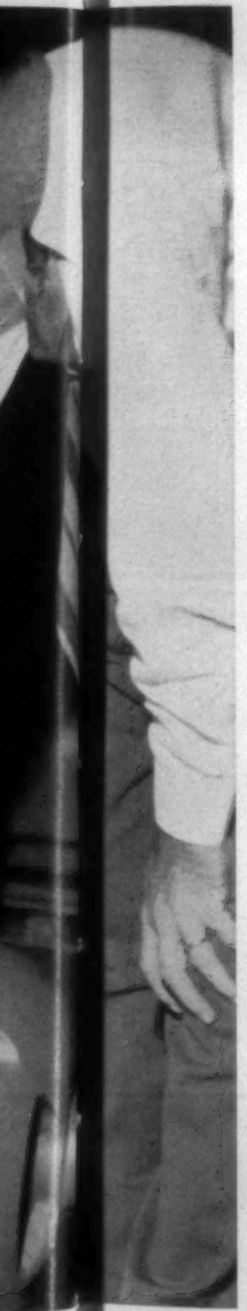
FHP V-Belt





spinning frame cylinder speeds reduced 83%"

with Dayton Variable Speed Drive Assemblies

Tremendous monthly savings in time and labor have been recorded by a Georgia Textile Mill as a result of installing drives equipped with Dayton Variable Speed Cog-Belts.*

Installation of individual motors and Dayton Variable Speed Drive Assemblies was begun in April, 1956 on 93 new spinning frames. At the same time 23 older model frames were similarly equipped.

To change cylinder speeds on former equipment the sheave on each V-Belt drive had to be replaced with another of different size to get the desired ratio. Mill Superintendent estimated total time to change each sheave at one man hour.

With the new Dayton Assemblies time has been reduced to ten minutes per frame. Never has fretting corrosion caused difficult adjustment.

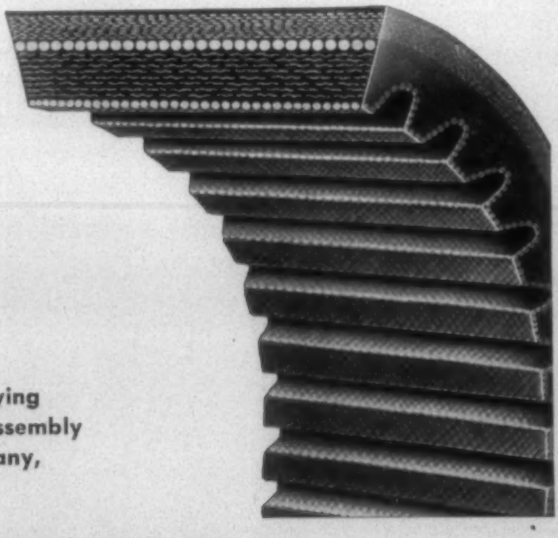
Result: increased yarn production due to extra operating hours on every frame. With 116 frames in the spinning room it is obvious this adds up to a substantial amount of yarn.

Transmitting maximum, dependable power on each of the drive assemblies is a Dayton Variable Speed Cog-Belt. Slippage, according to the Mill Superintendent, has been practically eliminated. Yarn uniformity has been noticeably improved, even on the older model frames.

Highly important, not a single hour of downtime due to failure of the Dayton Variable Speed Cog-Belts to perform properly has been experienced.

Dayton Variable Speed Cog-Belts assure accurate speed ratios

Exclusive Cog design gives extreme crosswise rigidity to prevent squashing. Cogs also permit flexing around smallest sheave diameters without strain. Die cut, raw edges grip sheave, reduce slippage, offer double assurance of exactly controlled speeds.



For the name of the selected Distributor carrying the complete Dayton Variable Speed Drive Assembly in your area write The Dayton Rubber Company, Industrial Replacement Div., Dayton 1, Ohio.

Dayton Rubber

*T.M.

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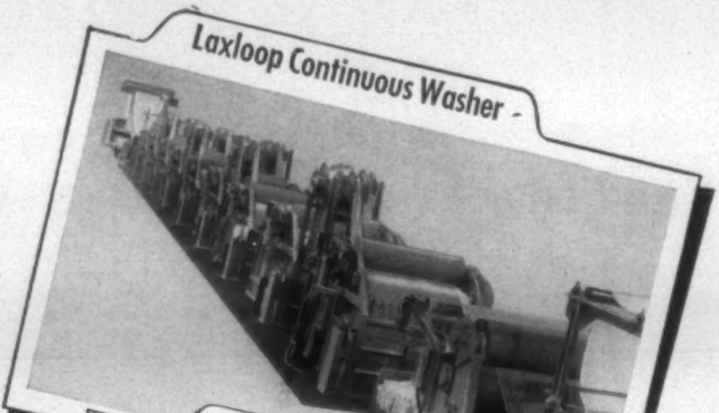
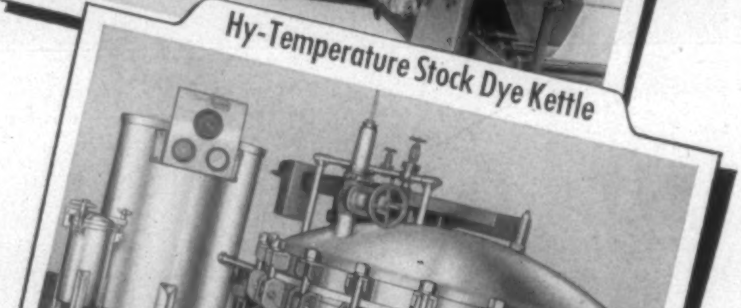
World's Largest Manufacturer of V-Belts


Laxloop Continuous Washer -


Hy-Temperature Stock Dye Kettle

The Fleet Line

A COMPLETE LINE OF

MODERN EQUIPMENT

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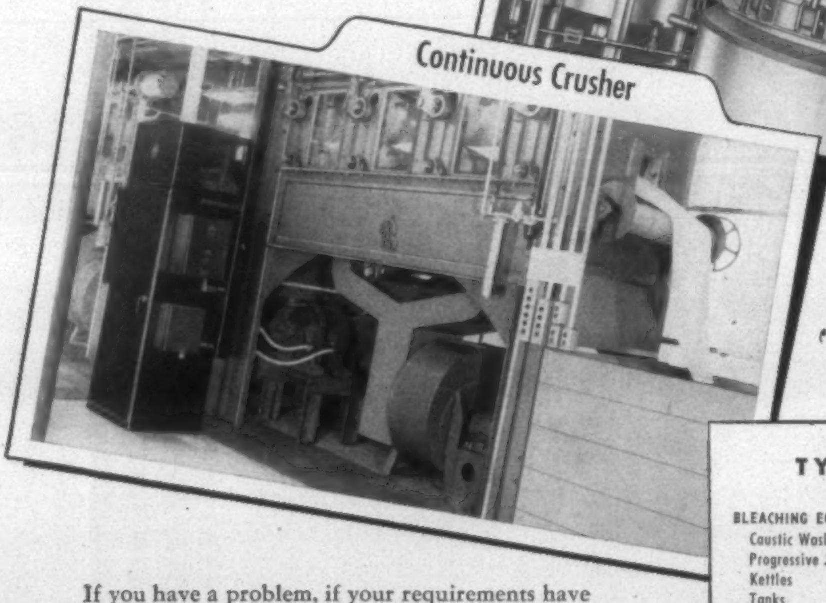
Continuous Crusher

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Automatic Filling Winder

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A NEW LOW IN WINDING COSTS

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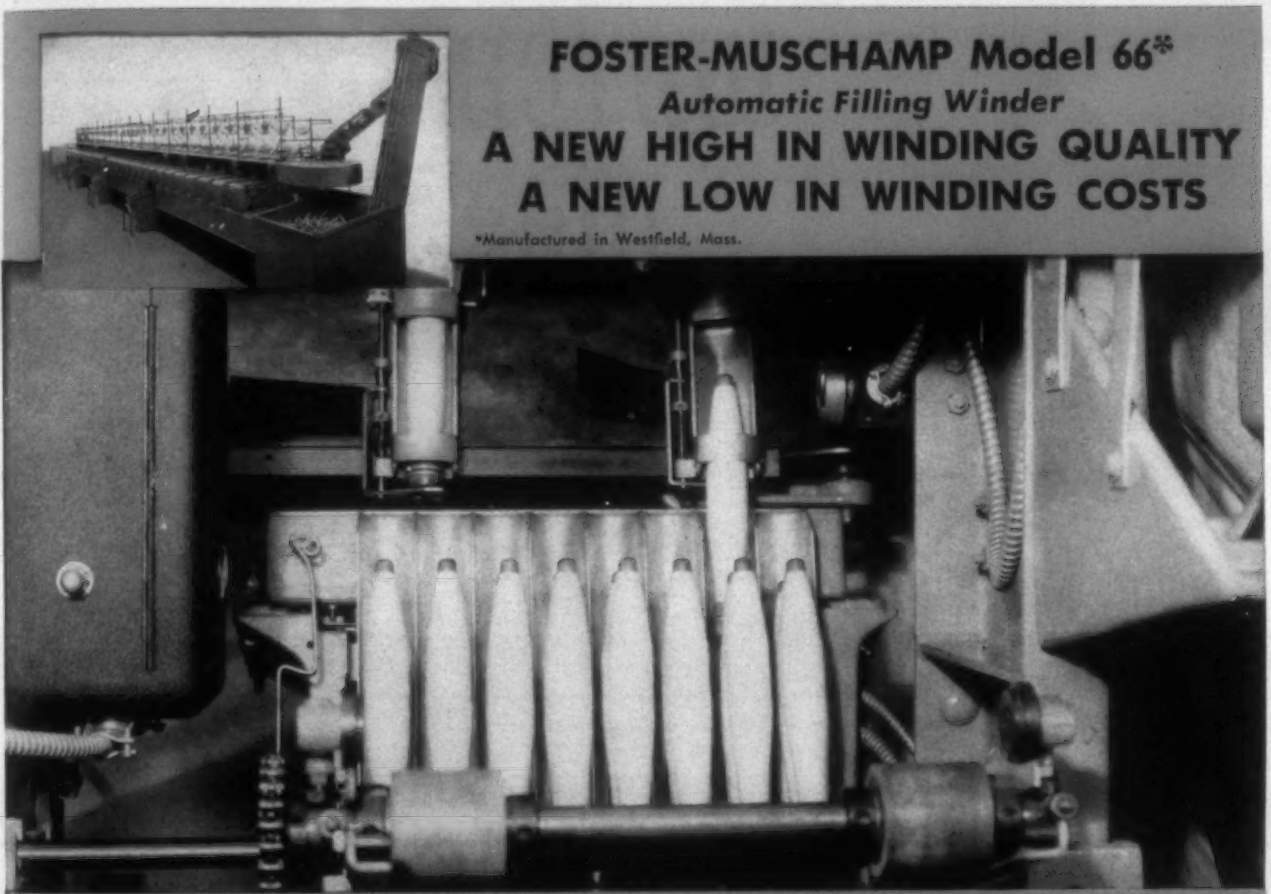

Automatic pinboarder serving 8 spindles

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The Foster-Muschamp Model 66 offers not only a new high in winding quality and a new low in winding costs, but also MAXIMUM FLEXIBILITY, through independently controlled spindles. Different counts or colors can be run on different spindles (in gangs of 2, 4 or 8) of the same machine at the same time. The machine will also handle equally well all types and counts of yarn from coarse cotton, wool or worsted to the finest counts of filament yarns without the use of extra attachments or complicated adjustments. Since mills are called upon for an ever increasing number of filling styles, this flexibility is of vital importance.

Learn about ALL the advantages of the Model 66 (there are many). Write for Bulletin M-4A.

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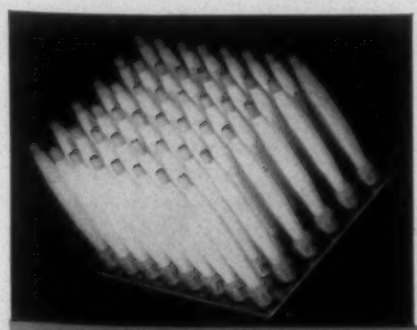
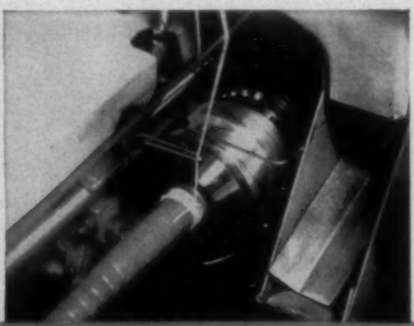


Note uniformity and perfection of Model 66 bobbins.



No starting tail on Model 66 bobbins. The tail is secured under first wraps of bunch.

Automatic donning and doffing of bobbins and other features cut winding cost to as low as ¼c per lb.

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Belief is rooted in union circles that Dave Beck has been shelved as active chief of the giant Teamsters' Union, and control assumed by Jim Hoffa. Beck's lieutenants in a short and torrid session in a Miami hotel room are said to have relieved him of active command, allowing him to retain title of president until the teamsters' convention in September, when his elected term expires. He was said to have been asked to stay out of the country until then.

Beck flew to Bermuda, where he wired Senator McClellan he could not possibly appear before the Senate Select Committee, investigating teamsters' affairs, before March 26. Then he flew to London. He described Hungarian relief and various group conferences in Europe as needing his attention while his union at home faced the most formidable investigation before Senator McClellan, on charges of racketeering and misuse of funds, in labor's history.

Meantime, citations for contempt for evading questions were brought before the Senate by Senator McClellan against four of Beck's aides. They had refused to answer questions, and also invoked the Fifth Amendment, concerning the presence of gangsters and racketeers in the Teamsters' union, and squandering funds from its mammoth income of $35 million a year from 1,403,000 members. McClellan said the inquiry into the union could be expected to continue for more than a year.

Other unions in which gangsters and racketeers are said to be active, and welfare funds being wasted, are high on the McClellan investigation list. The Senate in a grant of authority equal to that of any of its committees has armed Senator McClellan to proceed without limit in uncovering rascals in unions, and granted him the unprecedented initial sum of $350,000 to pay costs. Another grant of $210,000 equips a subcommittee, of which he is chairman, to delve into frauds in the sale of clothing and apparel to the Armed Services.

A great stack of data and charges of graft, corruption and hoodlum practices in unions is piled high on Senator McClellan's desk. The search is being directed into misuse of regular union funds, and of welfare funds; of stealing and thievery in handling the funds; of illegal payments or diversion of such funds, possibly running into millions and millions of dollars, into the pockets of certain union officials; of installation of racketeers in top union posts; of collusion between union officials and certain employers to evade genuine bargaining; the collection of blackmail and extortion; and use of force and violence, especially in strikes and on picket lines.

Unions do file financial statements with the Department of Labor, but scrutiny of these reports is denied to employers or the public. McClellan said it has been discovered some of these reports are false, but no executive agency in government has the power to question their truth. He said the Department of Justice could investigate fraudulent reports if it chose to do so, but refused to speculate why it had not done so. The financial reports have never been audited or tested as to truth.

An objective of the McClellan committee, with the Senate Labor Committee's help, is to bring in legislation to secure, protect and guarantee pension and welfare funds. Such action, with new anti-racketeering legislation, has

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1926 "IF IT'S PAPER" 1957

been due for five years. While A.F.L.-C.I.O. has gone strongly on record against racketeering in unions and stealing of union funds, it is by no means certain that member unions will not make an all-out fight against effective legislation in either direction.

Huge sums that have accumulated in pension and welfare funds puts them into big business, with fiscal problems that go far beyond corruption. Six of the funds have been found by the Senate Labor Committee to be "grossly mismanaged," and 13 guilty of "questionable practices." Parent union leaders find some unions have looted their own funds, or used them for unintended purposes. The whole area of pension and welfare funds has come to offer almost unparalleled chance for exploitation by criminal elements.

The Teamsters' Union, long considered "the rotten borough in the structure of unionism," is struggling to prevent being ousted from the A.F.L.-C.I.O. Because of its position in moving freight, as well as the number of its members, it holds the most powerful position among unions. In recent years, the power of its local and regional unions has been concentrated at the top, where it is wielded by Beck, Hoffa and less than a half-dozen men. Beck has handled the money, while Hoffa reached out for new members and ran other affairs.

Beck defended actions of his aides by saying government inquiries into labor abuses often turn into "inquisitions," without citing instances. He said A.F.L.-C.I.O. is starting on a program "full of danger for the whole democratic way of life." Leaders of other unions expressed belief the teamsters have become a haven and hide-out for crooks and gangsters run out of other nefarious pursuits, and are exploiting helpless and defenseless members for immense personal profit.

Even with alleged house cleaning and changes in official faces, it may be only a matter of time until the parent union comes to grips with the issue of whether to expell the teamsters. The new "code of ethics" strikes at the base line of methods and practices the teamsters have used to build up their huge membership. Until now they have used the threat of withdrawing their contribution of about a million dollars a year to the parent merger to flout action aginst them, and to refuse to accept a non-raiding agreement.

Reduction in the work week to about four days will be put forward by the auto workers in contract negotiations late this year. This is the key clause in wage demands being worked out for the next conference. While some emphasis will be put on unemployment protection, the guaranteed annual wage will not be put forward as in 1955.

Expected year by year increases in revenue, from growth in the economy, will never alone pay the national debt or allow tax cuts, said Treasury Secretary Humphrey. Spending must be less, he told the Joint Economic Committee of Congress. A tax cut might come of more revenue, he said, but in years since the war spending has kept pace with, or exceeded, revenue. This trend, which dominated the last Congress with record-breaking peace-time spending, must be reversed, he said.

Mr. Humphrey said he cannot prove it, but if present high taxes continue long enough he thinks activities necessary to provide needed jobs cannot be maintained. He said appeals for restraints in wage and price demands must be heeded.

Strife has broken out anew between the two largest farm groups and the union leaders seeking legislation in Congress. Farm groups have declared against weakening the Taft-Hartley Law, and for prohibition of feather bedding, industry-wide bargaining, and all forms of compulsory unionism. They want the Hobbs anti-racketeering act strengthened, and say that "no person should be deprived of work because of membership, or not, in any organization." They oppose an increase in the $1 minimum wage.

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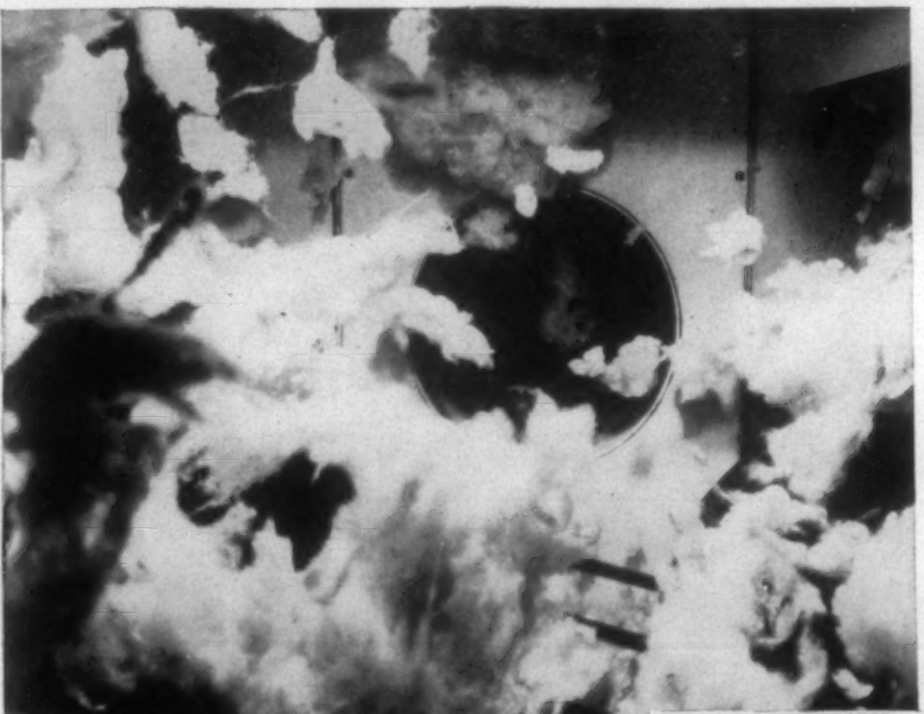
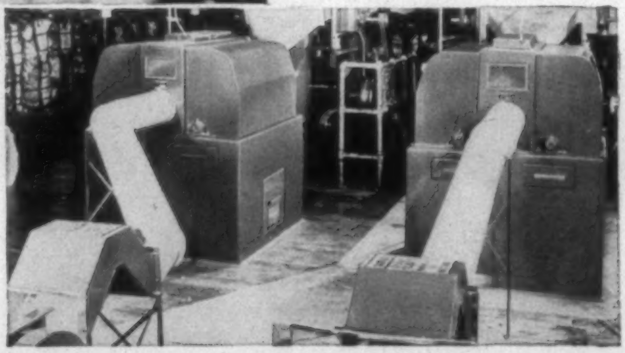
are fast making conventional opening and cleaning methods obsolete!



High speed photograph of interior of Whitin AXI-FLO showing cotton in process of being cleaned, further opened and blended. Note small size of tufts passing out through delivery pipe at rear.

Mill installation of two AXI-FLO units. Each is fed by a line of blending feeders.



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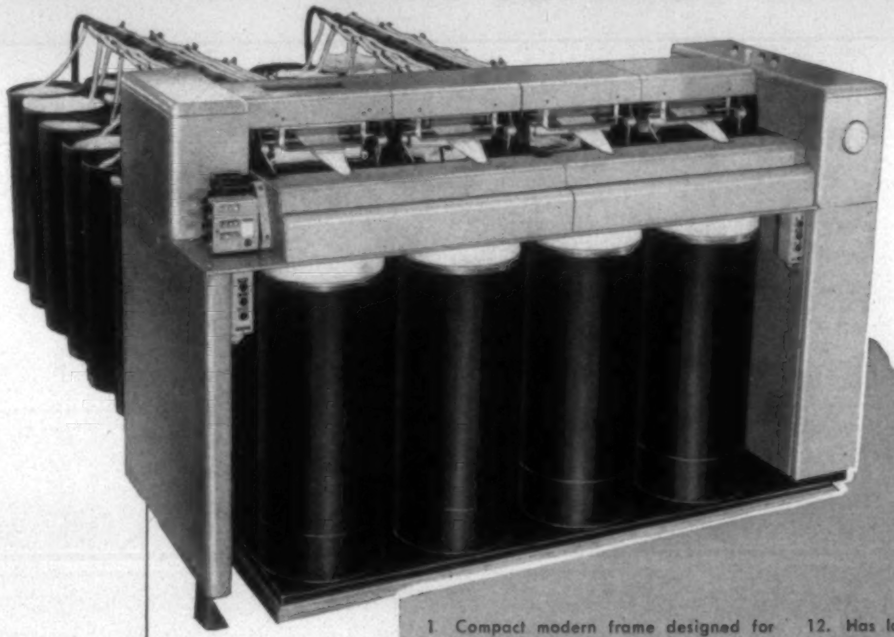

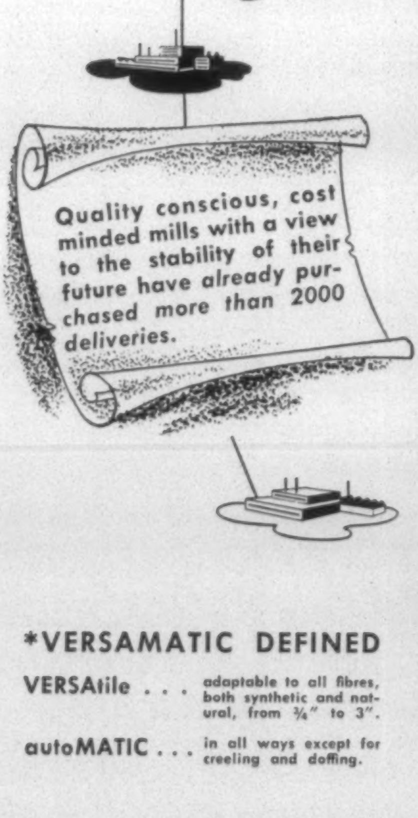

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textile bulletin

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TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving phases of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are theirs and not necessarily those of the editors and publishers. ¶ Circulation rates are: one year payable in advance, $1.50; two years payable in advance, $2.00; one year, Canada, $3.00; one year, other countries in Postal Union, $5.00; single copies, 25 cents. ¶ A companion monthly journal, THE KNITTER, is published by Clark Publishing Co. and devoted to the interests of the knitgoods manufacturing industry.

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The Five-Year Jap Truce: Precursor to a Solution?

It would be rather unusual indeed if some "bugs" of one nature or another do not turn up sooner or later in the long-awaited "voluntary" limitation by Japan of its cotton textile imports to this country. Such is probably to be expected in view of the fact that the over-all quota and quotas by categories, worked out by the Japanese Government in consultation with representatives of the U. S. Government, are somewhat experimental and represent a new form of inter-governmental control of trade. By and large, however, the attitude of U. S. mill men seems to be that the five-year package, even though it may fall short of perfection here and there or in some details, constitutes a reasonable and realistic approach to a serious and complicated —and delicate—problem.

In all or most quarters the arrangement has been considered to mean that the so-called "shooting" has stopped now for the next five years, at least, and that during this extended armistice possibly a more permanent or even a more satisfactory solution can be achieved. From any vantage point one can view it, the problem essentially is one created by conflicting policies of the U. S. Government in maintaining statutory legislation which, on the one hand, forces costs of domestic production progressively higher and, on the other hand, invites low-wage imports from foreign countries. At any rate, however, the five-year plan should free the U. S. textile markets from the gloom and uncertainty that have disrupted them for more than two years. Manufacturers should certainly now be able to do some degree of forward planning and to go ahead with whatever expansion plans they shunted aside in the face of prolonged market disruption and price depression.

Indeed the key result of the program, following months of discussion between representatives of the governments of the two countries, is that it restores some semblence of stability to the U. S. industry. Mill management should now be able with reasonable confidence to engage in research and sales planning at least without the fear of being sunk in an innundation of Japanese goods. It's taken a woefully long time, but at long last the U. S. Government seems to come around to recognizing its paradoxical situation and realizing the need and urgency of a practical means of alleviating severe hurt to a basic American industry. And it has found a way which, if it is not perfect, at least avoids fundamentally altering U. S. foreign trade policy.

If the whole situation is viewed realistically, neither the U. S. Government nor the Japanese had much choice except to bring about the "voluntary" or "unilateral" controls. This is simply for the reason that failure to do so would have inevitably meant increased pressures from the domestic industry and from Congress for import quotas and higher tariffs. Such a no-quarter-given fight, needless to say, was the last thing to be desired by the Eisenhower Administration, and the Japanese were certainly astute enough to know the lesser evil lay in a willingness to impose upon themselves a measure of voluntary restraint which could be accepted, in a bilateral sense, as reasonable and workable.

By the same token, there was lattle alternative for U. S. mill men except to embrace the voluntary plan with good grace and a "let's give it an honest try" attitude, even though everyone could not feel unbounded exhuberance over the program. Indeed, as more than one mill man has been wont to observe, what other choice could there have been for the domestic industry? Still, over and above all such factors, there is historic precedent in the textile industry for such an agreement with the Japanese. The Japs, incidentally, have always appeared practical enough to realize that the United States could hardly be expected to endure, beyond a given point, a situation that defeated the purpose of its domestic policies, undermined a basic industry and even threatened to undermine the whole national economy in so many ways.

The present solution, which the Administration was so long in precipitating, nevertheless has its somewhat ironic aspect when it is recalled that back in 1937 the Japanese, well conscious of the whirlwind they were riding, agreed to a program of voluntary restraint basically like the present one, a principal difference being that the arrangement of a decade ago was a so-called private or "gentleman's agreement" lacking even the informal sanction or, one might say, a nod of approval, of the U. S. Government.

Back then the U. S. industry, virtually knocked off its moorings by an avalanche of Japanese cotton textiles which created a crisis that couldn't be appreciably stemmed even be a hasty and sharp increase in duty rates, sent a delegation or "mission" of textile industry representatives to Japan to talk the situation over realistically with the Japanese and to see what could be achieved in the way of practical compromise which in the end might react to the benefit of both. The U. S. mission succeeded in reaching an accord whereby the Japanese would limit shipments of yard goods to the U. S. market to an annual volume of 100,000,000 square yards. Subsequently, when the U. S. Government began to lift an eyebrow at the legality or propriety of such an agreement, the accord was allowed to lapse in the years preceding World War II.

While individuals in some segments of the domestic industry obviously are none too happy over the category quota directly affecting them, the fact that after all these years the yard goods total or quota is 113,000,000 square yards is some measure of indication, certainly, as to how well the U. S. industry fared or didn't fare in the voluntary agreement through consultation. As to the final effect of the present arrangement or agreement, it is plain that only time can tell and any flat judgment now would be unwise. The official—and somewhat circumspect—reaction of the A.C.M.I., central trade association of the industry, as enunciated by President F. E. Grier, is that the whole program is basically sound and workable but only to the extent it is enforced or is enforceable.

It is true that certain individual mill men and merchants have expressed a measure of disappointment and dissatisfaction, mainly on the feeling that quota figures on some fabrics are still far too high, and that it might indeed be difficult to prevent Japanese textiles from coming here despite Japan's promise to take all "feasible steps" to see that there are no transshipments from a third country, or particularly Hong Kong.

On the other hand some textile manufacturers in Japan have been represented as feeling the over-all limit of 235,000,000 yards annually is a considerable reduction from estimated exports to the U. S. last year of about 270 million square yards. Also they have been represented as fearful the arrangement with the U. S. might cause some European textile exporting countries, especially Great Britain, to seek similar restrictions on Japanese goods.

The annual over-all limitation is only about two per cent of total U. S. output. Quite naturally anyone unfamiliar with the sensitive nature of the textile and apparel industries or their many ramifications would wonder why such a disturbance was raised over a small percentage of total domestic output that is represented by imports. Understanding would more readily come when the precipitate increases in one segment after another are reviewed.

For without some limitation of imports of Japanese goods by category, it has been fairly well demonstrated, and as was perfectly plain to the industry itself for so long, that the Japanese by concentrating their shipments could easily knock off one segment after another of the domestic industry and no one might be certain where the assault would be centered next. Some industry segments, particularly the manufacturers of velveteens and ginghams, have been severely hurt. Indeed, several mills in the last two years have gone by the boards, blaming Japanese imports entirely for their difficulties, and other companies have put aside expansion plans and held the line in an effort to survive the economic storm.

While most sub-quotas are subject to annual review in the agreement, the exports of velveteens and ginghams are pegged at 2.5 million and 35 million square yards a year, respectively, and apply for the first and second years, the limits for subsequent years to be determined by consultation. The 35 million square yards of ginghams specified is about one-third of the 113 million square yards of cotton piece goods which Japan can export to the U. S. market. Yet gingham fabrics are made by only about two per cent of U. S. textile mills. Still, the velveteen and gingham quotas are about half the shipments of these categories in 1955.

Back in October the Tariff Commission recommended the duty on both plain-back and twill-back velveteens be virtually doubled. President Eisenhower withheld acting on the commission's recommendations while the Japanese "voluntary restraint" plan was being formulated, and subsequently, as expected, announced a few days after the Japanese agreement was made public that in view of the voluntary controls he was vetoing the recommendations of the Tariff Commission. The Tariff Commission recommendations are advisory and are subject to presidential approval.

Imports of Japanese cotton velveteen amounted to more than 8½ million square yards in 1955. Japan originally suggested that future shipments be held to 3½ million square yards. But in talks with U. S. officials, the Japanese reduced this figure to 2½ million square yards for 1957 and 1958. The levels to be set in the following three years will be fixed after annual studies of the situation.

A.C.M.I. President Grier has noted, however, that the Japanese program, establishing as it does the principles of diversification and avoidance of concentration against particular products, should be able to prevent sharp import damage to U. S. industry segments. Sub-quotas are contained in the agreement affecting such made-up items as blouses, sport shirts, pillowcases and other items where often the declared value of the imported merchandise is less than the labor cost of U. S. production.

It is worth noting that most of the harsh criticism of the Japanese voluntary agreement has come from political quarters and the nature of the criticism has involved matters other than primarily the dilemma of the textile industry. Within the industry itself the end of long uncertainty and disruption of market stability has been regarded nearly everywhere as serving to brighten the 1957 mill out-

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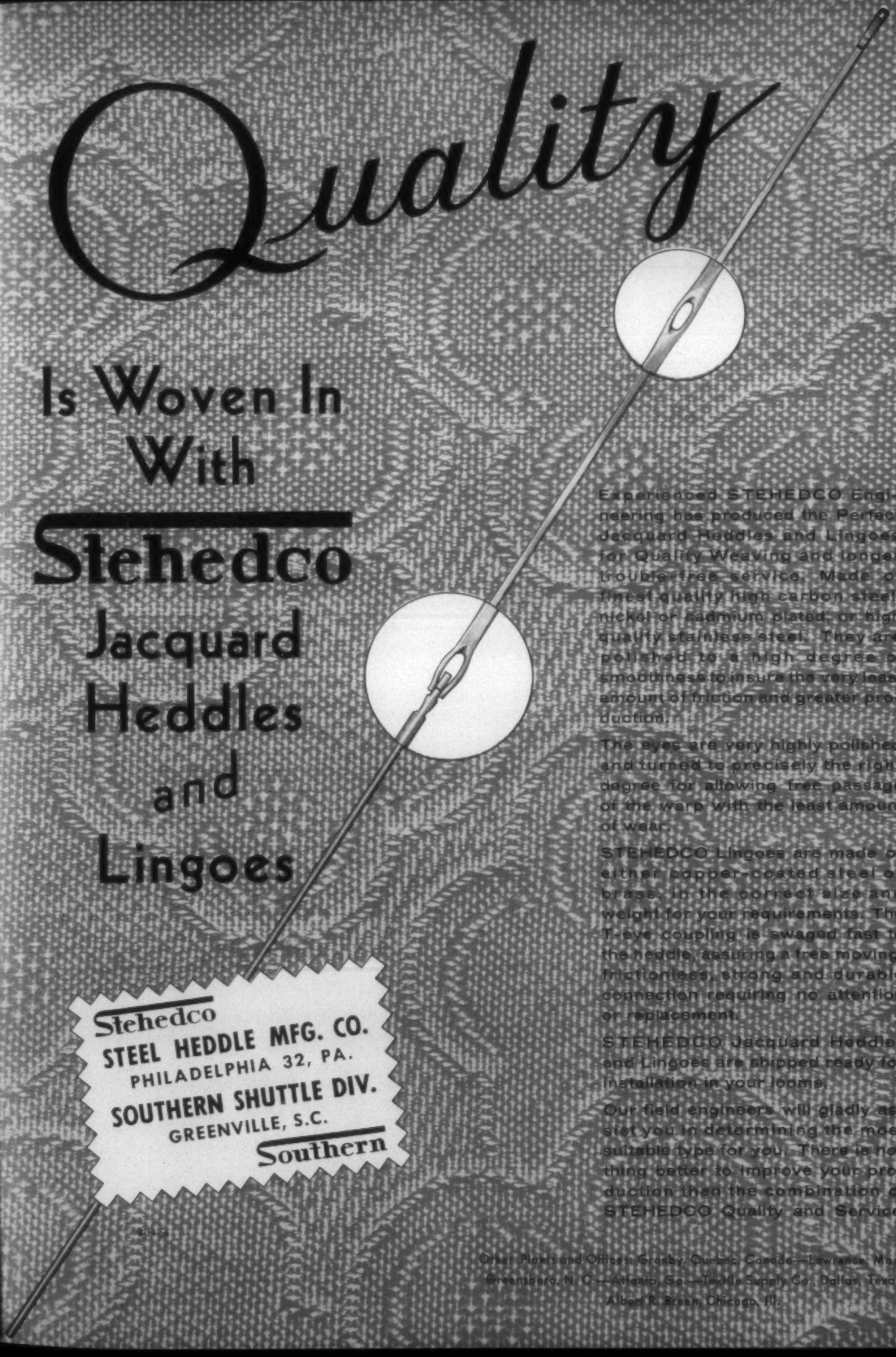

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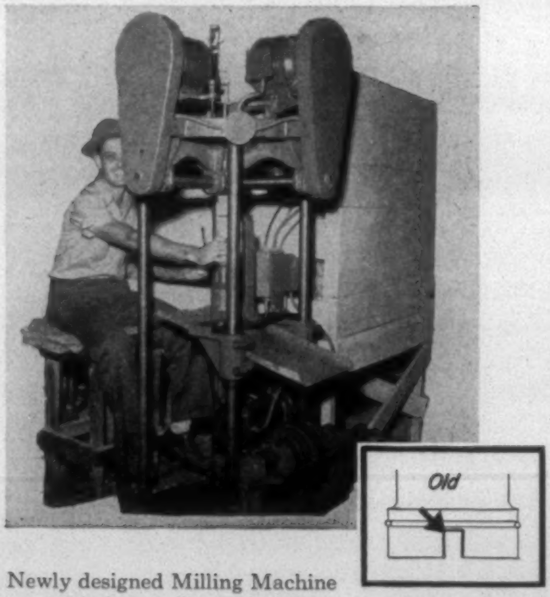

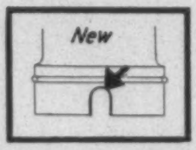

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look, although other factors obviously enter into the picture too.

Some analysts of the textile situation have been pointing out lately that the elimination of many marginal producers over recent years and a decrease in spindleage—a trend which became particularly marked in 1956—have tended to dissipate greatly the constant or chronic threat of potential over-production in the industry and thereby hastens the day when there can be a better belance in the elements of supply and demand. For the half-dozen years preceding 1956, cotton system spindles in place declined by well over a million spindles and the first nine months of 1956 saw the liquidation of a half-million more. Present spindleage of approximately 18,750,000 is roughly half the spindleage of three decades ago.

In some measure the decline in productive machinery in recent years has been the result of the dropping by the wayside of marginal producers unable to meet the intensified competition and rising costs of raw materials and labor regulated by the government. The same conditions tended to keep new plant construction to a minimum, due to the relatively poor promise of return on investment. Such long-continuing trends, in the face of a rather constant level of per capita cotton consumption, together with a growing population and an expanding economy, have led analysts and some mill men to forecast that the industry is moving closer to a period of stability to a degree and measure it hasn't known at least in recent times.

Experts have been saying from time to time that domestic consumption of cotton can reach 15 million bales by 1975 if per capita use holds up at the present level and if, 20 years from now, cotton can still retain the same percentage of the total fiber market that it now has—roughly almost 70 per cent. Regardless of how accurate such projections may be, for them to be considered plausible or likely, there obviously must be a vigorous and confident domestic textile industry which can continue to improve its processes, develop new products and expand the home market of cotton in the face of ever-intensifying inter-fiber competition.

The Japanese textile industry has been represented as being none too joyous over the final form of the agreement worked out by the two governments. Mill spokesmen in Japan have been quoted as expressing the feeling that the yardage quotas constitute unduly sharp reductions from shipments to the United States last year and that the yardages set on ginghams, velveteens and combed yarn fabrics are especially low, particularly in view of the fact that Japan is the best overseas customer for U. S. cotton.

A good part of the expressed dissatisfaction in the United States appears to be primarily over the velveteen and gingham quotas, but for quite different reasons, obviously. A typical comment in this respect was the following by Joseph W. Valentine, president of J. W. Valentine & Co.:

"With so many mills curtailed at present because of inability to book business on a break even basis, the importation of any Japanese cloth is just that much more than we need. However, I think it might be possible to live with that quantity of imported goods in a normal market. I think, however, the quota of 35 million yards for the gingham industry is completely unfair. The production of gingham mills in this country amounts to only two per cent of all the United States cotton broad woven production, yet under the announcement gingham mills would be obligated to carry the burden of almost 15 per cent of the total quota in cloth alone to say nothing of the impact of the garments. Generally, we cannot be happy with a set-up which apparently leaves the policing of these quotas completely in the hands of the Japanese."

State laws, already on the statute books in some states of the textile South and threatened in others, continue to be something of a moot point in the entire situation, although such laws obviously served initially to focus national attention on the gravity of the plight of the U. S. mill industry. Such laws require merchants selling Japanese textile goods to post conspicious signs reading "Japanese Textiles Sold Here."

The prevalent idea has been and is that the voluntary quota limitation is considered by Japan to be contingent on the United States taking all feasible steps to solve the problem of state laws that it considers discriminatory. In a word, the Japanese Government pledges in the agreement to take all feasible steps to prevent transshipments to the United States through third countries, but it demands that the U. S. Government reciprocate by eliminating discrimination against Japanese textiles.

The Japanese have contended that such laws violate the U. S.-Japanese treaty of 1953 which provided, among other things, for equal treatment without discrimination in the sale of the products of the two countries. Administration officials have taken the same view and one of them has labeled such laws as "discriminatory, unfortunate and deplorable." In the absence, however, of a court test, which is considered unlikely, the only means at the Federal Government's disposal seem to be influence and suasion.

As of now, or at the time this is written, it seems that any threat of further legislation of this type has been removed for the time being. While a "sign" bill did pass the House in the Georgia legislature, the Senate subsequently decided to put off indefinitely a final vote on the measure. The Cotton Manufacturers Association of Georgia was represented at a committee hearing as not recommending such a statute.

Reports from Columbia meanwhile quoted John K. Cauthen, executive head of the South Carolina Textile Manufacturers Association, as saying he had requested Rep. J. Bates Harvey of York county to adopt a "wait and see" attitude before carrying out his announced intention to press for passage this year of his bill to slap a $1,000 annual license fee on wholesalers and a $500 fee on retailers handling Japanese cotton goods. In view of the known industry attitude, chances appeared slim for the Harvey bill even though as introduced it bore names of 22 other members of the House.

Interest of the industry meanwhile followed closely developments of broad implication on the national scene as continued scrutiny of the self-imposed Japanese controls stirred a wide variance of reaction. Administration officials were represented as viewing cancellation of a Tariff Commission investigation of gingham imports from Japan as a vote of confidence for the plan of voluntary controls. The cancellation was made after spokesmen for the gingham segment of the industry notified the Tariff Commission that in the light of announcement of the export control program by the Japanese Government, the gingham segment is taking every action to co-ordinate its position with

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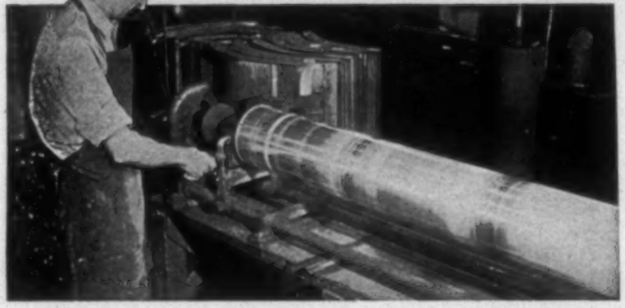

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government policy and the general interest of the textile industry.

Then, almost simultaneously, and somewhat unheralded, came the brief announcement from the State Department that Italy has agreed voluntarily to reduce by nearly a half-million square yards in 1957 the amount of velveteens shipped to this country. The action was taken by the Italian Government to meet protests from hard hit U. S. velveteen manufacturers. The State Department announcement said the Italians will limit shipments during 1957 to 1,375,000 square yards. Italy has been exporting to the U. S. about 1,800,000 square yards annually.

The departure or experiment which the voluntary Japanese plan represents naturally would be expected to raise such questions, but President Karl H. Helfrich of the American Tariff League goes on to comment: "The Japanese quota is a calculated risk inasmuch as it is completely voluntary. Its success rests entirely with the Japanese. We shall all be watching closely to see whether such a loose arrangement, without any provision for enforcement, can be a fit substitute for the orderly machinery which Congress has so carefully established in line with its constitutional authority."

In a nutshell, that is what the textile industry itself will be doing—watching closely. But in the absence of any alternative course that has been provided either by Congress or by the Administration, it has taken a stand in good faith that if properly enforced the arrangement is basically sound and workable and that therefore it deserves a fair trial. And it should hardly be necessary to reiterate at this late day the peculiar characteristics and special factors which make the textile imports problem a matter of grave consequence not only to a basic American industry but to the strength and wellbeing of the entire American economy.

TEXTILE INDUSTRY SCHEDULE

— 1957 —

Feb. 25-27 (M-W)—**GEORGIA SEC., AMERICAN SOCIETY FOR QUALITY CONTROL**, Georgia Institute of Technology, Atlanta, Ga.

Feb. 25-Mar. 1 (M-F)—**INTERNATIONAL HEATING & AIR CONDITIONING EXPOSITION** (sponsored by American Society of Heating and Air Conditioning Engineers), International Amphitheatre, Chicago, Ill.

Feb. 27-Mar. 1 (W-F)—**COTTON RESEARCH CLINIC** (sponsored by National Cotton Council), **General Oglethorpe Hotel, Savannah, Ga.**

*Feb. 28 (Th)—Trade symposium on wash and wear fabrics, **TEXTILE SEC., NEW YORK BOARD OF TRADE**, Sheraton Astor Hotel, New York City.

Mar. 11-13 (M-W)—Spring meeting, **NATIONAL COUNCIL FOR TEXTILE EDUCATION**, Wilmington, Del.

Mar. 14-15 (Th-F)—**SOUTHERN TEXTILE METHODS & STANDARDS ASSN.**, Clemson House, Clemson, S. C.

Mar. 14-15 (Th-F)—Annual meeting, **TEXTILE RESEARCH INSTITUTE**, Hotel Commodore, New York City.

Mar. 19-22 (Tu-F)—**COMMITTTEE D-13, AMERICAN SOCIETY FOR TESTING MATERIALS**, New York City.

Mar. 28-29 (Th-F)—**TEXTILE QUALITY CONTROL ASSN.**, Clemson House, Clemson, S. C.

Mar. 30 (Sa)—**PIEDMONT SEC., A.A.T.C.C.**, Roanoke Hotel, Roanoke, Va.

*Apr. 1-2 (M-Tu)—**SOUTHERN MUNICIPAL AND INDUSTRIAL WASTE CONFERENCE**, Student Union Building, N. C. State College, Raleigh.

Apr. 4-6 (Th-Sa)—Annual convention, AMERICAN COTTON MFRS. INSTITUTE, Palm Beach Biltmore Hotel, Palm Beach, Fla.

‡Apr. 6 (Sa)—**EASTERN CAROLINA DIV., S.T.A.**, Raleigh, N. C.

Apr. 9-11 (Tu-Th)—**NATIONAL PACKAGING CONFERENCE AND EXPOSITION (sponsored by American Management Assn.), International Amphitheatre, Chicago, Ill.**

Apr. 10-12 (Th-Sa)—Annual meeting, **ALABAMA COTTON MFRS. ASSN.**, Buena Vista Hotel, Biloxi, Miss.

Apr. 13 (Sa)—**SOUTHEASTERN SEC., A.A.T.C.C.**, Lindale, Ga.

Apr. 13 (Sa)—**NORTHERN NORTH CAROLINA-VIRGINIA DIV., S.T.A.**, (Dan River Mills as host), Danville, Va.

Apr. 24-25 (W-Th)—Open House, **A.C.M.I.** Cotton Fiber Testing Laboratory, The Clemson House, Clemson, S. C.

‡Apr. 25 or 26 (Th or F)—**SOUTH CAROLINA DIV., S.T.A.**

*Apr. 27 (Sa)—Spring meeting, **TEXTILE OPERATING EXECUTIVES OF GEORGIA**, Hightower Building, Georgia Institute of Technology, Atlanta.

Apr. 29-May 3 (M-F)—**MATERIALS HANDLING EXPOSITION** (concurrent with conference of American Material Handling Society), Convention Hall, Philadelphia, Pa.

May 1-2 (W-Th)—Spring meeting, THE FIBER SOCIETY, Clemson House, Clemson, S. C.

May 1-4 (W-Sa)—Annual convention, **COTTON MFRS. ASSN. OF GEORGIA**, Emerald Beach Hotel, Nassau, Bahamas.

May 4 (Sa)—**PIEDMONT DIV., S.T.A.**, Catawba Country Club, Hickory, N. C.

May 9-11 (Th-Sa)—**NORTH CAROLINA INDUSTRIAL SAFETY CONFERENCE**, Robert E. Lee Hotel, Winston-Salem, N. C.

May 16-18 (Th-Sa)—Outing, **CAROLINA YARN ASSN.**, The Carolina, Pinehurst, N. C.

May 20-25 (M-Sa)—NATIONAL COTTON WEEK (sponsored by National Cotton Council of America).

*May 28-29 (Tu-W)—Industry-wide market research conference (sponsored by National Cotton Council of America), Washington, D. C.

May 30-June 1 (Th-Sa)—Annual meeting, **SOUTH CAROLINA TEXTILE MFRS. ASSN.**, The Cloister, Sea Island, Ga.

June 6-8 (Th-Sa)—Annual outing, **SOUTHEASTERN SEC., A.A.T.C.C.**, Radium Springs, Ga.

June 7-9 (F-Su)—Annual outing, **PIEDMONT SEC., A.A.T.C.C.**, Mayview Manor, Blowing Rock, N. C.

June 20-22 (Th-Sa)—Annual convention, SOUTHERN TEXTILE ASSN., Ocean Forest Hotel, Myrtle Beach, S. C.

Sept. 4-6 (W-F)—Fall meeting, **THE FIBER SOCIETY** (joint meeting with British Textile Institute), Statler Hotel, Boston, Mass.

Sept. 12-13 (Th-F)—Annual meeting, **CARDED YARN ASSN.**, The Cloister, Sea Island, Ga.

Sept. 14 (Sa)—**SOUTHEASTERN SEC., A.A.T.C.C.**, Columbus, Ga.

Sept. 27-28 (F-Sa)—**COMBED YARN SPINNERS ASSN.**, The Cloister, Sea Island, Ga.

Sept. 28 (Sa)—**PIEDMONT SEC., A.A.T.C.C.**, Hotel Barringer, Charlotte, N. C.

Oct. 2-3 (W-Th)—**CHEMICAL FINISHING CONFERENCE** (sponsored by National Cotton Council), Hotel Statler, Washington, D. C.

Nov. 14-16 (Th-Sa)—National convention, **AMERICAN ASSN. of TEXTILE CHEMISTS & COLORISTS**, Hotel Statler, Boston, Mass.

Dec. 7 (Sa)—**SOUTHEASTERN SEC., A.A.T.C.C.**, Atlanta, Ga.

— 1958 —

Jan. 27-28 (M-Tu)—Annual meeting, **NATIONAL COTTON COUNCIL OF AMERICA, Phoenix, Ariz.**

Apr. 10-12 (Th-Sa)—Annual convention, AMERICAN COTTON MFRS. INSTITUTE, Hollywood Beach Hotel, Hollywood, Fla.

May 26-29 (M-Th)—**NATIONAL PACKAGING CONFERENCE AND EXPOSITION (sponsored by American Management Assn.), New York Coliseum, New York City.**

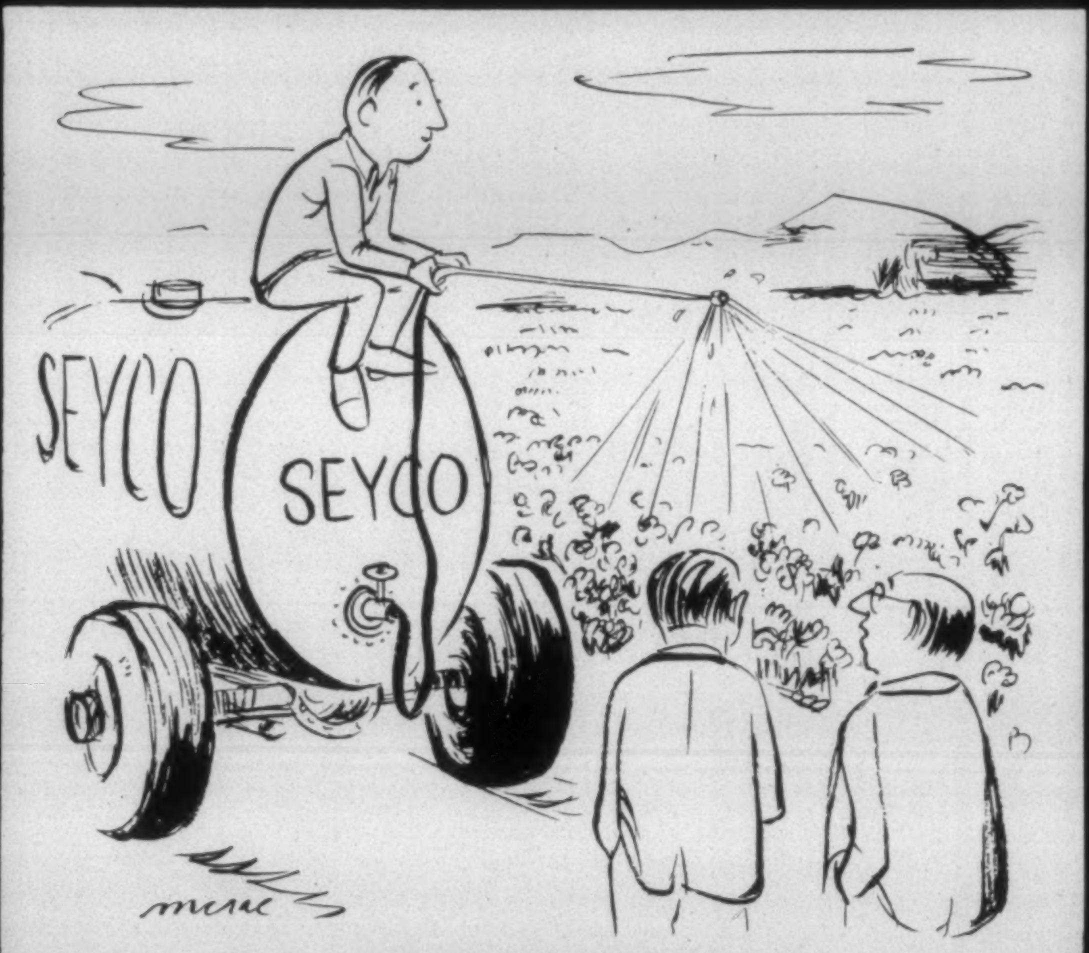
June 19-21 (Th-Sa)—Annual convention, **SOUTHERN TEXTILE ASSN., The Grove Park, Asheville, N. C.**

Oct. 6-10 (M-F)—**SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.

‡**Fall—National convention, AMERICAN ASSN. OF TEXTILE CHEMISTS & COLORISTS, Conrad Hilton Hotel, Chicago, Ill.**

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday; (Su) Sunday

****Listed for the first time this month.*** ***‡Tentative listing.*** ***†Changed or corrected from previous issue.***



" . . . cuts out an operation at the mill . . . "

Frankly, we're not working on a secret research project to eliminate the slashing operation—after 52 years in the business, we still think it is necessary. We also think technical assistance is helpful at times, and that is why we maintain a fully-equipped and fully-staffed chemical laboratory—to serve you the better.

Warp Sizing: *Softeners, Binders, Penetrants, Ty-In Penetrants, Shuttle Dressing, Waxes.*

Wet Processing Chemicals and Auxiliaries: *Dye Assistants, Penetrants, Rewetting Agents, Sanforized Fabric Oils, Detergents, Scouring Agents, Softeners.*

Niagara Twist-Setter: *Yarn Conditioning Penetrants.*

Seyco Warp Lubricator.

Headquarters for textile chemicals

SEYDEL-WOOLLEY & CO.

748 RICE STREET, ATLANTA, GEORGIA

SEYCO

For the Textile Industry's Use

— NEW MACHINERY, EQUIPMENT AND SUPPLIES —

Lanasyn Brown 2RL

Sandoz Chemical Works Inc. has announced the development of a new Sandoz premetallized colorant for the neutral dyeing of wool or nylon. Called Lanasyn Brown 2RL, it is recommended for its superior fastness to light and to decatizing. Among its characteristics and applications, the following are especially mentioned by the manufacturer: production of a good union on silk and wool by common salt method; greenness in artificial light; superior fulling; high resistance to the effects of iron and copper; desirable orange overhand in daylight. Leaflets on Lanasyn Brown 2RL have been prepared by Sandoz and can be obtained by filling out one of the reader service request cards in this journal. (Request Item No. B-1)

All-Plastic Wheel

An entirely new reinforced all-plastic industrial wheel has been announced by The Fairbanks Co. Known as Lamilon wheels, on which patent is pending, they are said to be the achievement of years of research, development and extensive field service tests. Tests in accordance with A.S.T.M. standards have shown that the wheels rate exceptionally high on high impact strength and abrasion resistance which means that the wheel will retain a smooth tread and perfect concentricity in service, thereby protecting floors against marking or marring. Users reportedly have found them to be unexcelled for use wherever combinations of different types of floors are encountered as they will not mark wood floors nor mar concrete and similar type floors.

Other important properties are said to include low water absorption and resistance to oils, greases and chemicals. The water absorption factor of the Lamilon wheel is said to be almost as low as high quality rubber tires. Furthermore, the wheels proved to be unaffected by oils and greases and showed a high resistance to most chemicals including acids, alkalies and solvents. The ability of the wheel to withstand deterioration due to wet floors or the presence of oils and greases and other liquids, has been verified in service Fairbanks reports, and users say that they give exceptional service in the worst floor conditions.

The wheels are sparkproof and have high load ratings. They are regularly furnished in sizes 3" through 12", with alloy steel roller bearings with hardened steel outer race and provision for pressure lubrication. They can be furnished with tight thread guards of exceptionally large diameter. Formed thread guards fit snugly into specially machined grooves in each side of the wheel and the perfect concentricity of the formed thread guard and machined groove permit the minimum clearance for maximum protection against threads, lint, hair and any other materials that would bind the wheel on its axle. (Request Item No. B-2)

Interchangeable Heads For Shear Flow Mixers

Gabb Special Products Inc., manufacturer of Shear-Flow mixers for the textile industry has announced a new design development. The new Shear-Flow feature is the interchangeability of mixing heads.

The complete mixing head is a compact self-contained unit consisting of the mixing shafts, stator-housing, counter-rotating impellers, seals and all related parts. The ease in which it can be removed from the motor and drive assembly is said to be a feature in itself. Removal of 4 retaining bolts and loosening of the drive belt disengages the mixing head permitting the insertion of a new head as soon as the other is removed. This quick-change feature was designed to reduce to a minimum non-productive downtime at maintenance periods, requiring only minutes to complete a change. Spare mixing heads are available for all production models in 3 impeller sizes. All parts subjects to immersion are constructed of corrosive-resistant materials. (Request Item No. B-3)

Cationic Softener

Arnold, Hoffman & Co. has developed a new cationic softener called Ahcovel X57. Described as a truly universal textile softener, Ahcovel X57 reportedly performs effectively on cotton, viscose and acetate rayons, nylon, Orlon, Dacron, Darlan, etc., and is of considerable merit in both pure and resin finishes. On the hydrophobic fibers, the new Ahcovel X57 series show antistatic properties. In this connection, Arnold, Hoffman states, it is interesting to note that they are unique in their ability to confer anti-static properties to Darlan when applied by substantive application.

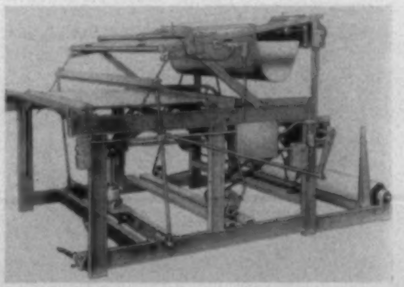
Among highly desirable characteristics of Ahcovel X57 cited by Arnold, Hoffman are its ease of solubility in warm water (120°F.), high degree of substantivity, low foaming properties, compatibility with most resin catalysts, and excellent softening for all synthetic and natural fibers. It will not cause odor to be formed on the fibers, is highly resistant to scorching and yellowing, and will not contribute to chlorine-retention damage. When included in textile resin formulations, Ahcovel X57 does not decrease tear strength or lower crease resistance. It is notably resistant to washing. In respect to the fact that Ahcovel X57 will not contribute to chlorine-retention damage, it is pointed out by Arnold, Hoffman that for the first time a cationic substantive softener with excellent all-around qualities can be introduced into a resin formulation with full knowledge that any chlorine damage will be a function of the resin alone.

An important characteristic of Ahcovel X57 stressed by Arnold, Hoffman is that, whether used alone or as a plasticizer for resin finishes, it does not contribute to a loss in tensile strength when subjected to conditions such as are encountered in standard chlorine damage tests. Ahcovel X57 is available in 2 forms—a readily soluble, easily workable fluid paste and a soft wax concentrate which contains the maximum concentration of active ingredients allowable for dissolving without the use of special techniques. (Request Item No. B-4)

Carpet Rayon Staple

American Viscose Corp. has begun commercial production of Colorspun (solution dyed) carpet rayon staple. Deliveries began last month from the firm's Parkersburg, W. Va., plant. The staple is being offered in colors designed for blending and also acceptable for tweed combinations. The staple is being made in 15 denier initially. Prices are from 45 to 55 cents per pound. (Request Item No. B-5)

C & M Cloth Folder



M-125 cloth folding machine (Curtis & Marble Machine Co.)

Curtis & Marble Machine Co. is now offering what it describes as an entirely new concept in a cloth folding machine. Called the M-125 in commemoration of the 125th anniversary of the company, the new folder is operated by a single simplified drive. Clutches, cams or spring, gears and flat belts, which formerly required considerable maintenance and parts replacement, have been eliminated, the manufacturer reports. A 15% reduction in the length of the new folder has been achieved over the older type machine and a power saving has also

MORE THAN 2½
MILLION SPINDLES
NOW EQUIPPED WITH
ROBERTS HIGH DRAFT

ROBERTS SPINNING NEWS

PUBLISHED BY
ROBERTS COMPANY
SANFORD,
NORTH CAROLINA

VOL. 12 SANFORD, NORTH CAROLINA NO. 2

MOST BALL BEARINGS USED IN ROBERTS SPINNING FRAMES

The use of ball bearings at many key points of a spinning frame not heretofore found possible has been accomplished in the Roberts M-1 frames.

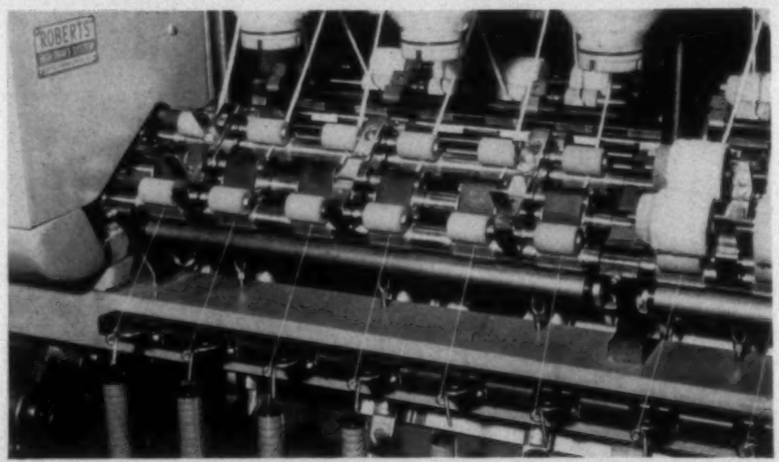
This liberal use of ball bearings results in a spinning frame with smoother performance, greater dependability and freedom from lubrication. The need to replace wearing parts and future maintenance expense is eliminated.

The key points in Roberts Spinning Frames now ball bearing equipped are:

lifting rod rolls
wave shafts
cross shafts
builder motion pivots
crown gear swing arms
complete lay trains
intermediate gears
front roll gears
upright shafts
jack shafts
cylinder bearings
and, of course, in
spindles
tape tension pulleys
top roll suspension system

The long felt desire by practical mill men to apply sealed ball bearings to spinning has been successfully accomplished in the Roberts M-1 Spinning Frames.

ROBERTS TOP ROLL SUSPENSION USES BALL BEARINGS ALL 3 LINES



A top roll suspension system which uses double-row ball bearings in front, middle and back lines and incorporates many other important design advantages has been announced by Roberts Company

BALL BEARING SPINDLES FIND WIDE ACCEPTANCE

Since early 1956 when Roberts Ball Bearing Spindles were first introduced, several hundred thousand have been installed in spinning frames.

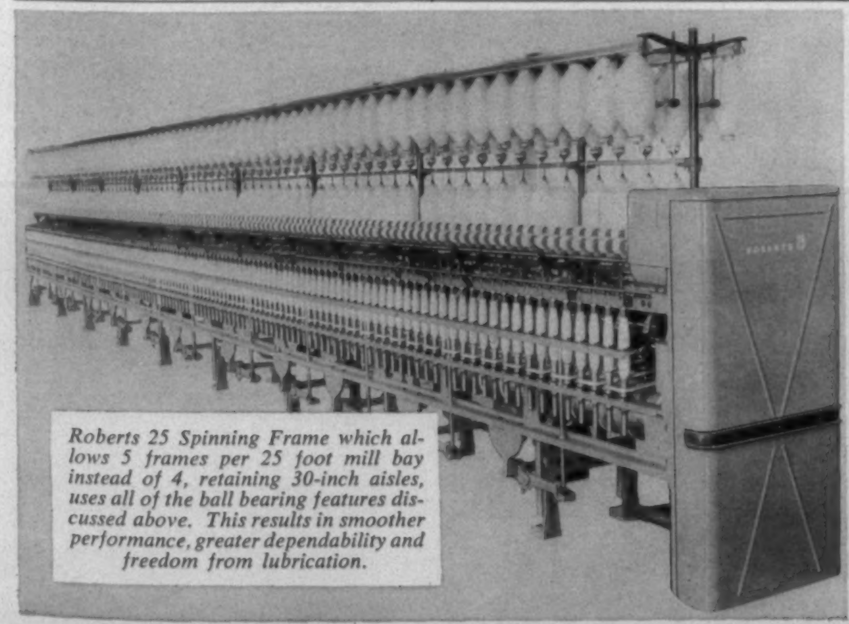
Mill men report their performance exceptionally dependable, even at the highest operating speeds.

Adaptable to several drafting systems as well as its own, the Roberts Top Roll Suspension embodies all the following features, many not found in other arrangements:

1. Cots are buffed on standard equipment, without attachments.
2. Cots revolve together making lap removal simpler.
3. Full length revolving clearers are used.
4. Front and back rolls are interchangeable making sequence buffing possible.
5. All three lines of rolls have double-row ball bearings.
6. Has controlled self-alignment.
7. Cots have ½" hole diameter.
8. 2-piece labyrinth seal is protected from lint entrance and roll picker damage.
9. Double row bearing raceways are ground directly into ½" shafts.
10. Bearings grease-packed for life.
11. Conventional dead-weighting or new spring weighting optional.

An alternative arrangement also available employs a ball bearing top roll and special suspension on the front line only with Roberts Cap Bars and solid top rolls on middle and back top rolls.

Roberts also continues to offer its No-Oil Cap Bar and Saddle system for all three lines, now installed in more than 2½ million spindles.



Roberts 25 Spinning Frame which allows 5 frames per 25 foot mill bay instead of 4, retaining 30-inch aisles, uses all of the ball bearing features discussed above. This results in smoother performance, greater dependability and freedom from lubrication.

been made by the reduction of moving parts so that the new folder operates on only ¾ h.p.

A new feature is the adjustable stops which permit any desired drop setting up to 8". This deeper drop, coupled with an air-operated folder table, allows additional yardage to be folded from the latest type looms weaving longer cuts, and greatly reduces operator fatigue over an 8-hour shift, Curtis & Marble engineers point out. And they point out that mill tests have proved the folder can be operated most satisfactorily at speeds up to 150 y.d.p. The folder also has an improved auto-seam-stop, coupled with a dynamic brake, which stops quickly and releases automatically. It is a self-contained machine with power unrolling, all anti-friction bearings and is furnished with a yardage counter for individual cuts.

Operational requirements for the 50"-wide machine, 8'8" long by 5' high by 6'6" wide, are ¾ h.p. and 35 lbs. air pressure. (Request Item No. B-6)

100% Active Amide Softener

Glyco Products Co. Inc. is offering a 100% active amide softener designated as Softener 64, a white, waxy solid of low surface tension that disperses in hot water. Glyco reports that it is easily converted to a cationic softener by adding a little acetic or formic acid to a water dispersion. It is said to be unusually resistant to high processing temperatures and hot pressing and gives a maximum whiteness on white surfaces. It does not affect the colors on dyed or printed goods. Because Softener 64 does not contain water or inert material, it is very economical to use, Glyco points out. Only ¼ to 1% of the weight of the goods treated is necessary. Samples and further data are available.

(Request Item No. B-7)

Improved Rolls And Bars

Robert A. Main & Sons Inc. manufacturer of pinned rolls and pinned bars of various shapes and lengths, announces it is now able to produce the products with pins closer together than ever before possible. The new products allow the pins to perforate textile material with a very heavy pin concentration thereby making holes in a small area. The firm also manufactures pinned rolls and bars for any type application such as take-up rolls, feed rolls, etc. The rolls can be made for wet or dry, hot or cold applications in all diameters and in various lengths up to 24' long. A repinning service is also maintained.

(Request Item No. B-8)

Gulfcrown Grease

A new multi-purpose grease with an improved lithium base engineered to meet nearly all industrial lubrication requirements is now available from Gulf Oil Corp. The new product — Gulfcrown Grease—is designed to provide superior lubrication under conditions which often require a variety of special greases. Among such conditions are high and low temperatures, the action of water, high-speed bearing action and long storage. The company points out that the single-product multi-purpose grease reduces errors in application, cuts lubrication costs, reduces the number of grease guns needed, and simplifies problems of storage, handling and inventory.

Gulf claims these 4 quality features for the new lubricant: (1) high oxidation stability which provides longer life both in use and storage; (2) high mechanical stability which keeps the grease from thinning and running out of bearings; (3) high resistance to the washing action of water which provides continued lubrication under the dampest conditions; (4) ready flow in cold weather. Literature concerning Gulfcrown Grease is available.

(Request Item No. B-9)

Water Soluble Resin

Glyco Products Co. Inc. is offering a new water soluble synthetic resin available in tonnage quantities. It is water-white, practically odorless, with a melting range of 59 to 80°C. It dissolves rapidly in water, in all proportions, to give solutions of low viscosity. A 10% water solution

GREATER *Productive Efficiency*

GIVES YOU HIGHER DYEING PROFITS

The recent trend toward larger dye batches makes GASTON COUNTY machines the natural choice since FLEXIBILITY OF DESIGN is one of the outstanding features of this equipment. All machines are available for conventional or high temperature high pressure dyeing (above 212°F.)

GASTON COUNTY Package Dyeing Machines are built in single and multiple kier arrangements to suit individual production requirements. Interchangeable package carriers make it possible to dye BARBER-COLMAN CHEESES, 1⅝" tubes or springs, ⅝" tubes, cakes, muffs or any special sizes or types of dye tubes. Write for illustrated folder.

GASTON COUNTY DYEING MACHINE CO.

Pioneers In Automatically Controlled Dyeing Machinery

STANLEY NORTH CAROLINA

Gaston County Dyeing Machine Co.
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The Rudel Machinery Co., Ltd.
614 St. James St. W. Montreal
260 Fleet St. E., Toronto

is almost neutral. It is soluble in methanol, ethanol, ethyl acetate, methylethyl ketone, chloroform, methylene chloride and hot glycerol. It is insoluble in benzene, petroleum ether, diethyl ether, trichloroethylene and carbon tetrachloride. It is compatible in various concentrations with glycols, formamide, acetamide, urethane, glycollates, Carbowax, gelatin, dextrin, starch, polyvinyl alcohol, neutralized polyacrylic acid, sodium carboxy methyl cellulose, casein and zein. When a soft or stickly coating is desired, one of the aforementioned products may be added. This new resin, Dimethyl Hydantoin Formaldehyde (DMHF) Resin, has other interesting properties, Glyco reports. It has a high gloss, it is adhesive, it will not ferment or decompose, it is resistant to oils, gasoline and many aromatics, it is said. Samples of DMHF Resin and a data bulletin can be obtained by using this journal's reader service request card.

(Request Item No. B-10)

Improved Dobby Loop

Louis P. Batson Co. has announced the development of a number of improvements in its ShuR-TufF dobby loop. The manufacturer reports that, as presently marketed, the improved loop has these advantages: (1) The loop itself is of 1-piece construction, eliminating possibility of separation or breakage as is present with the previously manufactured spot-welded or riveted dobby loops. (2) The heavy, extra thick, 3-lug cleat now being used eliminates bouncing out of the notches on the jack on heavy weaves or when double springs are used; and at the same time eliminates wear on the dobby jacks. The conventional jackeye would wear in one of the notches on the dobby jack, Batson reports, but with the new ShuR-TufF dobby loops the worn jacks can stay in operation as the 3-lug cleat will be supported by the 2 notches that are not worn. (3) The riveting of the pin that supports the cleat and joins the loop is now completely flush with the sides of the loop, eliminating failure on the old type loops as well as wear on the adjacent loops and jacks, and avoiding possibility of the pin falling out and causing the cleat and the loop to separate. (4) An oversized pin (a full 5/16") permits longer life and allows practically no wear on the pin or the cleat. (5) The new, improved dobby loop or jackeye is completely case hardened after it is manufactured to reassure a more prolonged life and trouble-free service. (Request Item No. B-11)

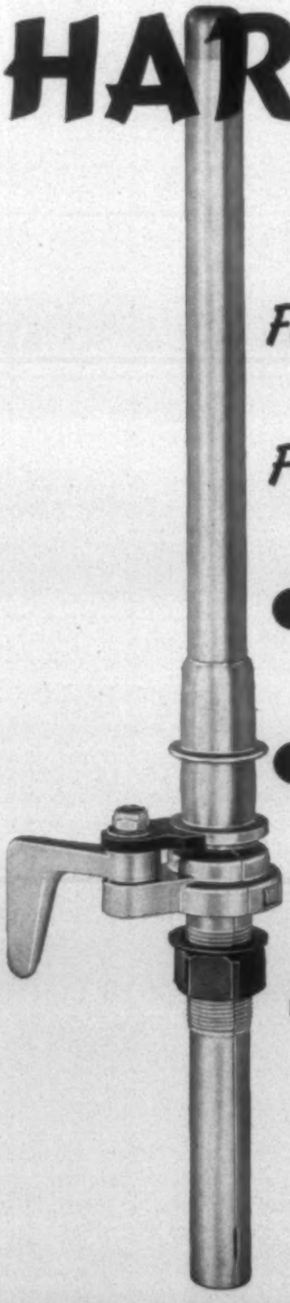
Surface Active Agents

The industrial chemicals division of Olin Mathieson Chemical Corp. is readying a line of nonionic surface active agents which it will market under the name Poly-Tergent. The products are expected to have a wide range of applications in the textile field. Four members of the Poly-Tergent line are being offered initially, with others to follow. All of the first group are alkyl phenol polyglycol ethers. They are liquids made from petroleum-base raw materials.

Poly-Tergent B-200, although intended primarily for use in non-aqueous systems, is dispersable in water. In low concentrations it is an effective wetting agent for cotton in the 32 to 75°F. temperature range, especially under acid conditions. As an emulsifier, the primary function of B-200 is that of an auxiliary emulsifier with the more hydrophilic types, but used alone it will effectively produce water-in-oil emulsions with various animal and vegetable oils.

Poly-Tergent B-300 reportedly possesses outstanding properties as a wetting agent, detergent, emulsifier and dispersant. It is completely soluable in water up to temperatures of 52 to 56°C. and in some organic solvents. Textile applications for which B-300 is particularly suited include raw wool scouring, desizing, dyeing and printing, soaping, carbonizing and certain types of finishing. Described as an excellent detergent, it may be used alone or with the usual mild alkaline builders for scouring cotton, wool, rayon and synthetic fibers. It is generally more effective in slightly alkaline solutions but will give good results under neutral and acid conditions. Ready rinsability is a characteristic advantage over soap and most synthetic detergents.

Poly-Tergent G-200 is miscible with most organic solvents but is only slightly soluable in water. It is intended primarily as an emulsifying agent and as an associate emulsifier with the more hydrophilic nonionics. It is of value as an additive "soap"



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  - Positive Latch
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CALENDER
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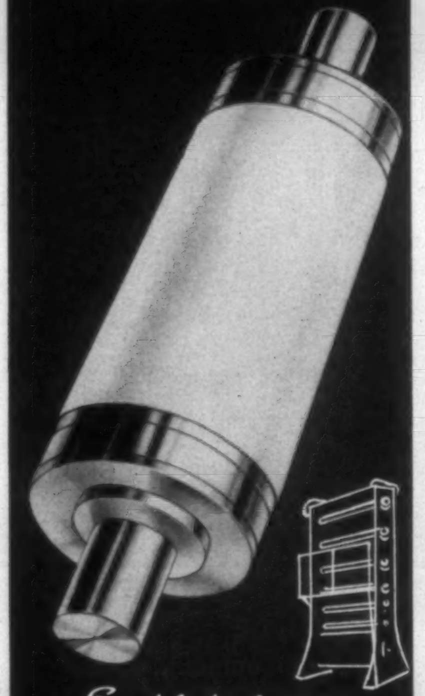

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in dry cleaning solvents, giving clear solutions and making possible the incorporation of small percentages of water.

Poly-Tergent G-300 is completely soluable in water up to 62 to 70°C. and in a number of organics. Unusually stable chemically, it is a good wetting agent, detergent and dispersant over a wide range of conditions of pH, temperature and water hardness. Like B-300, one of its important advantages is ready rinsability. G-300 reportedly imparts good wetting characteristics to all types of textile fibers. Thus it is suitable for use as an assistant in desizing, in bleaching, in dyeing and in after-treatment of prints and dyeings, in wool carbonizing, in kier boiling of cotton, and as a penetrant for many types of finishes. All of the Poly-Tergents are available in tank cars and in 5-gal. and 55-gal. drums.

(Request Item No. B-12)

Softener And Lubricant

A permanent, non-yellowing softener and lubricant for use in resin formulations on wash-and-wear cottons has been announced by Dexter Chemical Corp. The product, Ampitol PE-30, is a nonionic emulsion of polyethylene which, according to the company, increases considerably the tear and abrasion strength of wash-and-wear fabrics as well as imparting an excellent hand. Due to the lubricating properties of the new product, it is claimed, cutting and sewing of resin-treated cottons are improved immeasurably. Because of its nonionic nature, Ampitol PE-30 is compatible in formulations of urea formaldehyde, melamine formaldehyde or cyclic ureas, the main types of thermosetting resins applied to wash-and-wear cotton fabrics.

For some time, low molecular weight polyethylene resins have been known as excellent permanent softeners and lubricants in the wash-and-wear field. The company points out, however, that previous methods of emulsifying these resins caused yellowing on storage of the goods or reacted with the thermosetting resins to produce yellowing. With the development of new emulsifying methods for Dexter's nonionic product, this problem has been overcome. The softener can be used on the acid or alkaline side, and it is said, will withstand magnesium salts of various types.

(Request Item No. B-13)

Liquid Batching Meter

Neptune Meter Co. is offering a new repeating auto-stop liquid batching meter designed to deliver the same quantity of liquid each time the valve is opened, shutting off automatically when a preset quantity is reached. Neptune says the new meter is excellent for production batching and blending operations where the same formula is repeated over and over again.

Advantages claimed for the new repeating register are: (1) better quality control—the chance of human error is greatly reduced since the auto-stop quantity setting is made only once regardless of the number of times set quantity is delivered; easy-to-read numerals also provide visual confirmation of each delivery; and a ticket-printing feature can also be included; (2) less operator time needed—since the meter automatically delivers the correct quantity batch after batch without the necessity of resetting the auto-stop wheels; and (3) greater flexibility—only seconds are required to press the auto-stop buttons and reset the register to a new quantity when a batch size or formula is changed.

Flow can be stopped instantly at any point by pressing the emergency stop button. Three alternates are then available to the operator: (1) delivery can be finished to the original quantity by re-opening the valve; (2) delivery can be finished to a different quantity by manual operation of the valve; or (3) if necessary, a new batch may be started with the same quantity by first turning the re-cycling knob of the register. (Request Item No. B-14)

Gravity Feed Oilers

Kwik-Flush gravity feed oiler (Trico Fuse Mfg. Co.)

Trico Fuse Mfg. Co. has announced a new addition to its line of industrial oilers, the Kwik-Flush gravity feed model, which eliminates "dry starts" of machinery that has been shut down overnight, week-ends, etc. A special reservoir built into the oiler automatically floods bearings with a fixed amount (approximately 1/8 oz.) of lubricant the instant the oiler valve is opened.

Following the flushing cycle, the oiler functions in normal manner, feeding lubricant drop by drop at any required rate, and again stores up oil for the next flushing cycle while the machine is idle.

Kwik-Flush oilers are available in 10 oz., 1 pt., 1 qt. and 2½-qt. capacities, with either heat-resisting Pyrex or shatterproof Lucite reservoirs and with manual or electric solenoid shut-off valves.

(Request Item No. B-15)

Push-Button pH Meter

Beckman Instruments Inc. announces the new Zeromatic (T.M.) pH meter, an automatic push-button instrument with drift-free amplifier which can be adapted for potentiometer recorder output, automatic temperature compensation and Karl Fischer titrations. This line-operated instrument features automatic correction for electronic zero drift and rapid push-button control. It has a 0 to 14 pH scale range and 2 millivolt ranges: 700-0-700 millivolt range and the extended 0 to 1400 millivolt range. The extended range is said to be particularly useful for oxidation-reduction titrations. Zero can be set at any point on the 0 to 1400 millivolt scale.

The new instrument is designed for automatic accuracy, Beckman point out. Operator reading error is minimized with the mirror-backed scale (pH and millivolt) which eliminates parallax. pH readings are accurate to 0.1 pH unit and reproducible to 0.02 pH. In addition, the instrument employs a unique "standby" circuit which eliminates warm-up. The instrument is ready to operate at the touch of a button. The Zeromatic is left connected to the 115-volt power source at all times—on "standby." To make a pH reading, the "read" button is depressed. Push-buttons also control temperature compensation (manual or automatic) and selection of the appropriate millivolt range (700 to 1400).

Connections for a standard potentiometer recorder and for a Beckman automatic temperature compensator are provided on the rear panel of the Zeromatic. A connection also is provided for polarizing current in "dead stop" titrations. For most applications, a Beckman 4990-83 glass electrode and a Beckman 1170 reference electrode are used; these units are supplied with the instrument. A wide variety of other Beckman glass, reference and metallic electrodes may be also used with the instrument. The Beckman Zeromatic has an attractive acid and alkali-resistant melamine case and uses standard electronic tubes.

(Request Item No. B-16)

Defoaming Synthetic Latex Coating

Acrylic, styrene-butadiene and other synthetic latices with clay and/or pigments are used extensively in coating textiles. Foam is produced in mixing, handling and applying this type of coating, producing inequalities and defects in the finish. Proper mechanical handling will prevent excessive foam formulation. To keep foam at a minimum, Glyco Products Co. has developed a specific defoamer called Foamex. Only small amounts of the defoamer is added. 0.5 to 1% is used, based on the total solids of the coating, to eliminate substandard coatings. Samples can be obtained by using this journal's reader service request card. (Request Item No. B-17)

Foot-Operated Stapler

Container Stapling Corp., manufacturer of Actuated Anvil stapling machines and staples, has announced the development of a new type foot-operated bottom stapler—Model BSF-Jumbo. A special feature of the stapler is its simplicity. No electrical connections, no compressed air supply, no moving parts in the stapling head all mean no down time due to electrical or pneumatic failure. Any style carton can be set up in a few seconds, it is said. The number of car-

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tons per hour varies according to the number of staples driven and proficiency of operator. The stapler is portable (weighs 104 lbs.) and can be moved to various packaging areas as required. In addition to setting up regular and end-slotted containers as well as overlap cartons, this machine can also staple bags, set-up flat pieces of interior packaging, or staple flat pieces of board together. Dimensions of the unit are: floor to top of post, 48¼"; depth of throat, 42"; width of throat, 20".

(Request Item No. B-18)

Transfer Leaf Printer

Industrial Marking Equipment Co. announces the development of the transfer leaf printer No. S-90. The unit attaches to bag-making machines for automatic marking, dating or coding on polyethylene, pliofilm, cellophane and similar materials that take hot roll leaf impression. The unit is designed for imprinting bags and wraps.

Synchronized with and taking speed from the bag-making machines, No. S-90 automatically and accurately spot-prints in all combinations of colors, letters and numbers for either quality control or product identification—providing a practical, inexpensive method of identifying bags or wraps, the manufacturer points out. The printer needs no operator and very little maintenance. The resulting impressions are said to be sharp, clear, color-rich and permanent—they won't crack, chip, smear or rub off. Brass or steel type lasts almost indefinitely and is easily changed to suit specific product or batch needs. Extremely economical in actual operation, No. S-90 gives up to 200 impressions for one cent, the manufacturer reports. Additional information can be obtained by using one of this journal's postage-free reader service request cards.

(Request Item No. B-19)

Surface Active Agent

Synthrapol PWS, a nonionic surface active agent, is announced by Arnold, Hoffman & Co. Inc. as culminating three years' research in the field of ethylene oxide condensates. Exceedingly favorable results are reported for initial investigations of use of Synthrapol PWS. On the basis of redeposition and soil removal tests, Synthrapol PWS is shown to possess excellent detergent properties on cotton, even in extremely low concentrations. Similarly, low concentrations produce extremely effective results when Synthrapol PWS is used as a woolen piece goods detergent and as a scouring agent for raw wool. For cotton and wool scouring procedures, Arnold, Hoffman suggests initial concentrations of 5 oz. per 100 gals. Aside from this agent's normally high detergency in low concentrations, it is reported that detergent properties can be increased considerably by the addition of any one of a number of builders.

Synthrapol PWS is described in Ahco's Technical Bulletin No. 132 as showing good compatibility with other agents. Being chemically inert, it possesses much greater stability under a variety of conditions than do the anionic surface-active group. It is said to be fully effective in hard water and, unlike soap, will not form precipitates with calcium and magnesium salts.

In specific applications, Synthrapol PWS is recommended for soaping off and cleaning up stained prints. In starch desizing operations, it will not adversely affect or be affected by the action of enzymes. And in wool scouring procedures, by eliminating alkali Synthrapol PWS reportedly gains numerous advantages: (1) production costs are lower; (2) there is no danger of alkali damage; (3) better color and handle of the fiber are assured; and (4) in the absence of alkali, it is possible to scour at much higher temperatures.

(Request Item No. B-20)

Cibanone Yellow LGR Paste

Ciba Co. Inc. is offering a new anthraquinone vat yellow, Cibanone Yellow LGR Paste. The new Ciba specialty reportedly yields vat dyeings of a golden yellow shade with good all-round fastness and remarkably good light fastness in particular. Microfined physical properties of this new dye promote level dyeing, uniform shade control and best results in pigment application. Ciba points out that the striking, clean color of Cibanone Yellow LGR Paste provides a good base for vat yellow formulas. Fastness to light is excellent and is rated at 200 to 240 Fade-Ometer hours. Wash fastness is rated 5 in the No. 4 test of the American Association of Textile Chemists & Colorists. Stability in reduction contributes to trouble-free leuco application in the open bath or on the padder. The dye's property of exhausting on tone in continuous dyeing provides good shade control in long runs. The manufacturer points out that traditional problems of fast yellow shades on cotton and rayon, especially light fastness of pastel yellows, are largely overcome by the new dye. (Request Item No. B-21)

Loom Pressure Roll Covering

American Felt Co. announces that it is now offering an improved, lower-priced loom pressure roll covering called Mek-Tex. Distributed exclusively by Mechanical Felt & Textiles Co., Mek-Tek is used to cover take-up or pressure rolls on silk or rayon looms. The usual roller is 2½" in diameter, and for an average width loom, about 3½ yds. of 3"-wide strip is required. The manufacturer reports that after exhaustive testing it has been established that the new roll covering is at least twice as strong as any of the competitive coverings and is uniform in quality and thickness, spotlessly white and resilient. Mek-Tek comes in 100' rolls, 3" wide, and is priced at 15c per foot. (Request Item No. B-22)

Sevron Dyestuff

Production of a new cationic dye for Orlon acrylic fiber, Sevron Brilliant Red 3B, has been announced by the Du Pont Co. This dye produces a bright, bluish-red shade with good fastness properties. The new dye is said to be especially suited for use with other recently announced Sevron dyes—such as Yellow R, Orange G and Brilliant Red B—to produce bright reds similar to lipstick and jockey red shades. Sevron Brilliant Red 3B dyes rapidly at the boil and requires the use of a retarding agent to insure level dyeings particularly in light shades. The dye builds up well to a maximum strength of 5% and is unaffected in shade by differences in the pH of dye-baths over the pH range of 3 to 10. Sevron Brilliant Red 3B is excellent for dyeing the Orlon component in blends of Orlon and wool since little wool staining occurs, it is pointed out.

(Request Item No. B-23)

Zipp Degreaser

Stewart-Hall Chemical Corp. has announced the development of a new aerosol degreaser that is designed to easily, quickly and safely remove such substances as grease, oil, carbon, tar, gum, etc. from all types of machinery and electrical equipment. Called Zipp, the new product dries rapidly, leaving no film or vapor. It will not short electrical equipment, is non-corrosive and non-flammable, and is safe for painted surfaces. It does not contain carbon tetrachloride. Packing is 16 ozs. net weight per can. Zipp is sprayed on the area to be cleaned, then wiped clean with a rag, or, if not electrical, the object can be held under a water faucet to be rinsed off.

(Request Item No. B-24)

For the Mill Bookshelf

Tubing And Fittings For Vacuum Systems

H-P Products Inc. has published a 6-page bulletin describing Vacu-Flo steel tubing and fittings for vacuum systems and conveying lines. The bulletin lists specifications of a variety of Vacu-Flo tubing, adapters, reducing couplings, slip couplings, short nipples, band hangers, tube plugs, etc.

(Request Item No. B-25)

SpinSaVac—SpinSaCreel

The Parks-Cramer Co., manufacturer of textile air conditioning and automatic cleaning equipment, has published an 8-page booklet (Bulletin F55) describing SpinSaVac cleaning systems for the spinning frame. Also included is a description of SpinSaCreel, the company's open-type creel. (Request Item No. B-26)

Teflon Lined Pipe

Publication of a bulletin on Teflon lined steel pipe is announced by Haveg Industries Inc. This 2-page bulletin, T-100, is the second of a series on Haveg's Teflon equipment. The first, T-50, covers Teflon as a material. Bulletin T-100 details the application of Teflon as a liner for schedule 80 steel pipe. Pipe lined with Teflon will withstand temperatures as high as 350°F., the bulletin points out. Working pressures of this piping are limited by the flange strength. Standard flange strengths are available at 125#, 250# and 300#. Standard sizes are 1", 1½" and 4"; standard lengths in 2', 5' and 10' sections.

(Request Item No. B-27)

Stein, Hall Booklet

Stein, Hall & Co. Inc. has published a 20-page booklet on the centrifuged natural hevea latex which it markets under the trademark of Unitex. The booklet contains a complete description of Unitex centrifuged natural hevea latex, a product of British Malaya, which is produced in the factories of Guthrie Latex (Export) Ltd. and sold exclusively in the U. S. by Stein Hall. It contains a complete description of the product, from the planting of the rubber trees to delivery of the latex to consumers. It also gives detailed information on the services offered by Stein Hall and lists the rigid specifications which have been set up for Unitex. Copies of the booklet are available upon request.

(Request Item No. B-28)

Automation of Water Treatment Plants

A new technical article on automation of water treatment plants is now available from Graver Water Conditioning Co. Automation, one of the foremost topics in the engineering field today, is finding wide application in the boiler feedwater and process water treatment fields. With the percentage of automatic plants installed growing enormously each year, this subject is of great interest to all persons coming in contact with the water treatment field. Technical Reprint T-148 discusses this important development in detail. Several specific case histories are presented pointing out the problems involved and the methods of solution. Flow diagrams of these plants are shown to allow the reader to understand the problem and solution. Of par-

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Jake Jacobs says —
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ticular interest will be the fact that the authors have presented several important classification breakdowns. Water treatment processes and equipment are divided into three groups — mechanical, chemical and ion exchange. These are further divided to indicate the many sub-divisions and types of processes. The types of measurements required by the processes and the types of control systems are also classified and discussed. The article also presents, in addition to many illustrations, a chart of the various types of demineralizers available, their application and advantages.

(Request Item No. B-29)

Diehl Textile Motors

Bulletin No. 3526 describing several new motors for the textile industry is available from the Diehl Mfg. Co. Described in the 6-page bulletin are Diehl's new space saving Type DIL totally-enclosed fan-cooled motors for use with all types of textile machinery; the Type BA power-transmitter for Draper looms; and the Type CIE totally-enclosed squirrel cage textile loom motor. The 2-color bulletin is illustrated with 12 photographs showing design features of the new motors. Particularly comprehensive are the photos of the radically new Type DIL fan-cooled motors.

(Request Item No. B-30)

Lighting Catalog

Benjamin Electric Mfg. Co. has published a new general catalog which supersedes all previous listings of Benjamin lighting equipment shown in former general catalogs. All Benjamin equipment is now listed in this single, complete edition. Information in the catalog is arranged in 10 convenient sections—each with its own index tab. A complete numerical and alphabetical index is provided.

(Request Item No. B-31)

Air Compressors

The Kellogg Division of American Brake Shoe Co. has published a new 20-page catalog covering its line of ⅓ to 20 h.p. air compressors. Well illustrated, the booklet gives complete specifications on single and 2-stage models, portable models, tanks, pumps and accessories. Useful charts, data, and information on compressed air are also included. (Request Item No. B-32)

PA Cotton Uses Summarized

A summary of information on partially acetylated cotton, its preparation, properties, uses and potential uses has been published by E. M. Buras Jr. and Ralph M. Persell of the Southern Utilization Research Branch of the Agricultural Research Service, U.S.D.A., and is available without cost.

Considerable research on the preparation and properties of partially acetylated (PA) cotton has been carried out at the Southern Utilization Research Branch. PA cotton is the result of chemical modification of the cotton cellulose molecule. According to the authors, it produces a fiber unchanged from the original in general appearance, and without objectionable properties of odor, color or toxicity. It is highly resistant to damage from heat and from rot-causing micro-organisms. Processes for the batch acetylation of raw stock, yarn and fabric, and the continuous acetylation of yarn and fabric, are described and illustrated.

PA cotton, processed in accordance with methods developed in the Southern Utilization Research Branch, is produced and marketed in the U. S. under commercial trade names for household ironing board covers. It is being evaluated for various other uses, including electrical and thermal insulation, tarpaulins, shower curtains, tents, linings for leather shoes, and a number of other purposes where resistance to damage from heat or mildew and rot is desirable.

Single copies of ARS-72-4, *New Textile Products from Cotton,* may be obtained without cost from the Southern Utilization Research Branch, 1100 Robt. E. Lee Blvd., New Orleans 19, La.

(Request Item No. B-33)

Chemicals for the Textile Industry

Rohm & Haas Co. has published a revised edition (T-25c) of its booklet *Chemicals for the Textile Industry.* The booklet contains a list of the various chemicals manufactured by Rohm & Haas for the textile industry. The products are classified in groups according to their main field of application—(1) reducing and stripping agents; (2) desizing materials; (3) resin finishes; (4) synthetic sizes; (5) dispersing agents; and (6) surfactants.

(Request Item No. B-34)

Sylvania Light Control

A 4-page brochure depicting new light control through the new directional reflector fluorescent lamp has been released by Sylvania Electric Products Inc. The brochure provides general information on the new lamp, announced last Spring, especially designed for the commercial and industrial market. The lamp has its own "built-in" reflector that increases the downward brightness by as much as 60% and puts light where it is wanted. The lamp was designed to increase the amount of usable light in high-ceiling installations where bare lamps are used without reflector or where reflectors soil easily. (Request Item No. B-35)

Association Directory

Werner Textile Consultants has published a *Directory of Textile and Apparel Trade Associations,* listing 275 textile and apparel trade associations in the U. S. and their respective administrators. The directory is the work of Werner's marketing staff, and was done in response to many requests from various trade sources for such a comprehensive listing. The associations are arranged in alphabetical order by key words of each association. Furthermore,

all associations are designated by 1 of 3 categories. Textile trade associations are designated by T; apparel trade associations are designated by A; and associations that are primarily concerned with distribution of textiles and/or apparel are designated by D. Limited supplies allow only 1 copy to each company at $1.00 per copy by writing to Werner Textile Consultants, Marketing Research Dept., 60 E. 42nd St., N. Y.,
(Request Item No. B-36)

Alco Product Booklet

A new illustrated booklet describing its products and their applications has been released by Alco Oil & Chemical Corp. Among the company's products detailed are wetting agents, latex compounds for upholstery and carpets, ultra-accelerators, rubber compounding materials, latex compounds for foam rubber production, and stabilizers and thickeners. Copies of this booklet (No. 5M-12-56) are available upon request. (Request Item No. B-37)

Levelling Agent

Sandoz Inc. is offering Booklet No. 246, *Lyogen DK*, describing a levelling agent for direct and vat colors, facilitating use of combinations of dyes with different rates of strike. Copies can be obtained by using one of this journal's reader service cards.
(Request Item No. B-38)

Lab Reference Chart

A new *Laboratory Reference Chart* published by Arnold, Hoffman & Co. Inc., manufacturer of dyestuffs, is being made available to technicians in industry. The chart is printed on card stock for durability and punched for filing in a 3-ring binder or convenient hanging on the laboratory wall. The chart provides such data as comparative hydrometer scales, comparative centigrade and fahrenheit temperature tables, atomic weights of the chief elements, metric equivalents, formulas for determining capacity of cylindrical and rectangular vessels, tables of decimal equivalents in fractions, and conversion tables for gallons to liters as well as for grams per liter to ounces per gallon and vice versa. Also provided in the new reference chart are data on preparation of test papers and on methods of determining available chlorine in bleaching powder and in sodium hypochlorite. A table defines the essential nature of each of a list of synthetic fibers now in general use, and another table lists the purpose or nature of each of the standard AHCO products. Copies of the chart are available on request.
(Request Item No. B-39)

Radioisotope-Activated Static Eliminator

A new data sheet describing a radioisotope-activated static eliminator has been published by United States Radium Corp. Bulletin L/A 2778 discusses the design and operation of the Ionotron and suggests applications. Utilizing a low-level radioactive source, the Ionotron eliminates static by

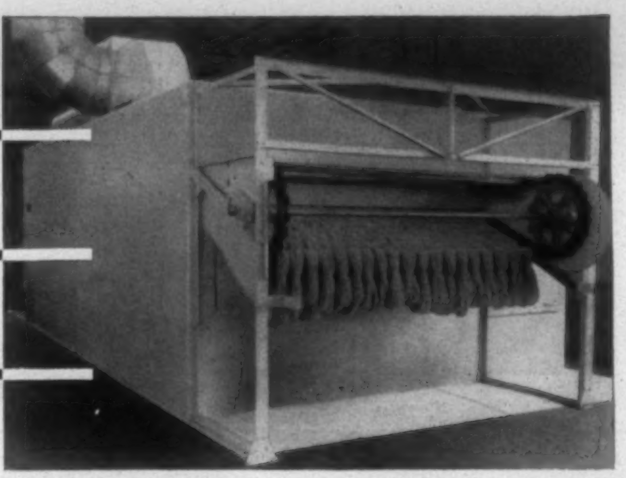
add to your PROFIT from production savings!

LOW OPERATING COST

EASIER INSTALLATION

IMPROVED HOUSING

RAPID DRYING



Proctor Automatic Skein Yarn Dryer with Two-Way air circulation, drying dyed carpet yarn.

PROCTOR DRYERS for Skein Yarn

Regardless of your output, there is a Proctor Yarn Dryer with the right capacity to make your drying profitable. Truck Dryers for skeins and cakes, or Automatic Dryers for continuous operation, both feature controlled air circulation to provide the *greatest drying uniformity obtainable.* Cotton, wool, silk, or synthetics can be dried at fastest possible rates—show substantial savings in time, labor, and steam requirements. And, as with all Proctor equipment, you can depend on performance guaranteed in terms of the finished product produced. Investigate these profit opportunities now—write today for latest information bulletins.

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AUTOMATIC BLENDING SYSTEMS • WEIGHING FEEDS • PICKERS • SHREDDERS • BALE BREAKERS • SYNTHETIC CARDS • GARNETTS • DRYERS FOR FIBROUS MATERIAL • YARN DRYERS • HOT AIR SLASHER DRYERS • CLOTH CARBONIZERS • ROLLER DRYERS AND CURERS • LOOP AGERS FOR PRINT GOODS • TENTER HOUSINGS • OPEN-WIDTH BLEACH SYSTEMS FOR WOVEN FABRICS • MULTIPASS AIRLAY DRYERS • NYLON SETTING EQUIPMENT • CON-O-MATIC WASHERS • CONTINUOUS BLEACH SYSTEMS FOR PRODUCING TUBULAR KNITS • EQUIPMENT FOR "REDMANIZED"® SHRUNK-TO-FIT FABRICS • CARPET DRYERS

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Proctor

PROCTOR & SCHWARTZ, Inc.
Philadelphia 20, Pennsylvania

Manufacturers of Textile Machinery and Industrial Drying Equipment

making the air in the vicinity of such disturbance electrically conductive. This pocket of air then bleeds off the troublesome electrostatic charge, the data sheet explains.

Schematic drawings are included of static areas as they occur in situations where 2 different materials are brought together and separated. Also shown is a diagramatic sketch of the Ionotron in operation, illustrating the effective zone covered by the device. The data sheet notes that Ionotrons are not stock items, but are designed and built to specifications. Width of material processed determines the length of the active source, while the space available at the proper location determines choice of housing. (Request Item No. B-40)

The World Is Catching Up

(Fairchild Publications Inc., 7 E. 12th St., New York, N. Y.; 638 pps.; 2 vols., $10.00)

The World Is Catching Up is a 2-volume work summing up the observations and impressions of Harry Riemer on a recent round-the-world tour during which he traveled 60,000 miles and visited 36 countries to determine how far these nations have gone in replacing markets that have been lost to them through the spread of communism and the decline of colonialism. Mr. Riemer, who is editor of *Daily News Record*, tells about the conditions, exports, imports, products, labor problems and sales programs of textile industries around the world, giving facts and figures, names and data for country after country. The author's royalties from the books will be donated to the National Council for Textile Education.

Serving The Textile Industry

Roberts Co. Expanding Plant Facilities

A new building is being constructed at 1 of the 4 plants of Roberts Co. in Sanford, N. C. The building will handle steel and other metals used by the company in manufacturing the various components for its textile spinning frames. More than 300 tons of metal is used monthly exclusive of pig iron consumed in the Roberts foundry. It is expected that a much better control of raw metal inventory stocks will be obtained. In addition, the new building is close by the Roberts chemical laboratory where metal analysis tests are made on both the company's foundry pourings and incoming raw stocks as well as cuttings from the various production machine tools. This will insure an improved quality control on the incoming cold and hot rolled steel shapes. The new building has a total of 6,000 sq. ft. It has an all-clear span inside without posts and a 3-ton travelling crane overhead will run from one end to the other. The loading and unloading facilities include a siding of the Atlantic & Western Railroad with the platform floor at a usable freight car level. Facilities for 3 trucks are also provided with 2-truck positions recessed into the building proper. All loading and unloading will be in covered positions so that operations can go on in any kind of weather.

Sparks, C. Nixon, Kersey, Hubbard

Strobeck, O. Nixon

DISTRIBUTION PALAVER—How Dayton Rubber Co.'s latest advertising and sales promotional will help merchandise rubberized textile machinery products and V-belts is the subject under discussion here between company executives and those of Industrial Suppliers Inc., LaGrange, Ga., one of Dayton Rubber's leading distributors for both lines. Shown are L. C. Strobeck *(left)*, Dayton Rubber vice-president of mechanical sales, and O. F. Nixon, Industrial Suppliers president and general manager. Standing *(left to right)* are K. C. Sparks, Dayton Rubber district manager; Charles W. Nixon, Industrial Suppliers vice-president and sales manager; O. T. Kersey, Industrial Suppliers vice-president and purchasing agent; and J. M. Hubbard, Dayton Rubber regional manager.

Jerguson Gage & Valve Co. Moves To Burlington, Mass.

Jerguson Gage & Valve Co., manufacturer of liquid level gages, valves and engineering specialties, has moved into its new plant and general offices on Adams Street, Burlington, Mass. The single-story plant, located on a 9-acre tract, contains twice the floor area of the company's former plant in Somerville, Mass.

Stellite American Handling German Moisture Tester

Stellite American Corp., New York City, has been appointed sole agent in the U. S. and Canada for a moisture tester manufactured by Elektro-Gesellscraft m.b.H., Dornbirn, Germany. The instrument is marketed under the tradename E.G.D. Moisture Tester.

Celanese Unveils Its New Charlotte Development Labs

The Celanese Corp. of America last month unveiled its new Charlotte, N. C., development laboratories. The new facilities are designed to provide a vital link between the company's basic fiber research, commercial fiber production and textile marketing and distribution. The center consolidates facilities and talent which previously had functioned in several different locations. The organization develops new and improved processes for making existing, modified and entirely new fibers and end products. Helping customers to profitably apply Celanese fibers in their operations is a prime concern of the laboratory technical staff.

Basic fiber research continues in the Celanese central research laboratories in Summit, N. J. When research there reaches a stage at which the new fiber appears to have commercial significance, findings are passed on to Charlotte for investigation of the fiber's commercial potentialities. The work in Charlotte is carried on by a staff of over 200 physicists, chemists, engineers, technicians and operators, with highly specialized backgrounds in fiber and textile technology. The scientists and skilled technicians have practical experience in textile plant operations, and are thus able to evaluate the results of research in light of commercial realities and market potentialities.

Included in the Charlotte development laboratories are process development, which develops practical and economical processes to manufacture new fibers; and applications and product development, which develops new end uses for fibers, as well as improved textile processing, dyeing and finishing techniques. The latter findings are passed on to customers.

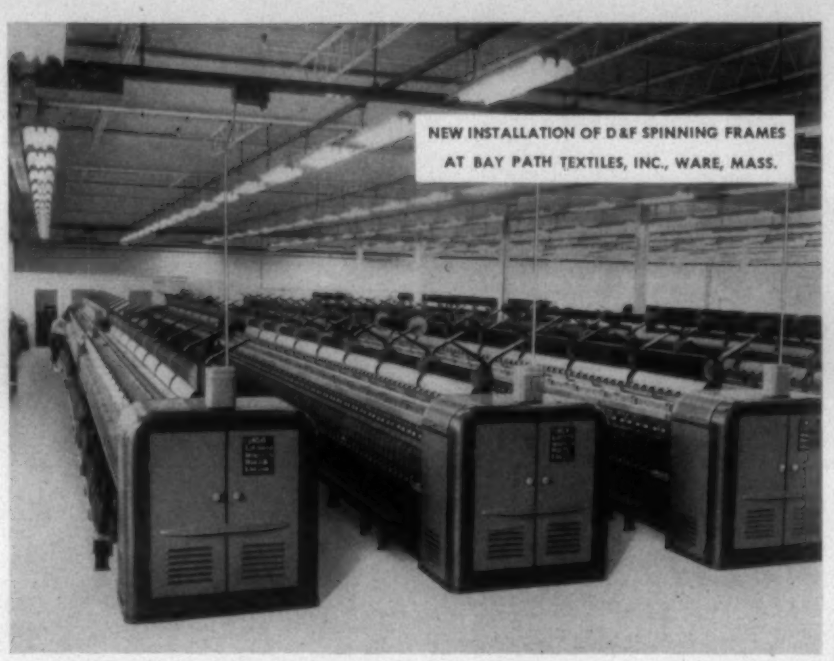
Working co-operatively, the 2 groups are separately aligned from an organizational standpoint. Process development is a part of the Celanese textile division's technical department, while applications and product development functions under Celanese textile marketing. The 2 development activities thus provide a link between Celanese basic fiber research at Summit and the company's fiber production and textile marketing activities.

The new Charlotte facilities, covering approximately 160,000 sq. ft. of total area, include the most modern equipment available. The operations include spinning, weaving and production of non-woven fabrics, including the preparation of such industrial products as filter materials. The evaluation of new dyes, the establishment of new and improved dyeing and finishing procedures, and the development of commercial dyeing and finishing processes are other major activities.

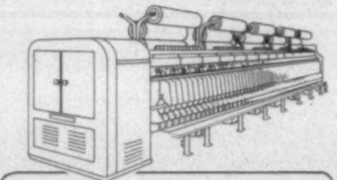
Laboratory facilities are housed in the Celanese textile division headquarters in Charlotte and in 2 new buildings on a 114-acre site nearby. In the division headquarters building, fiber and yarn processing work is conducted on the ground floor and evaluation is carried on in second floor laboratories. In the new buildings, one houses process development work and the other, dyeing and finishing.

Barnes Textile Associates In Organizational Change

The management consulting firm of Barnes Textile Associates Inc. has announced the co-ordination of that organization's activities with those of Scovell, Wellington & Co., and the relocation of the former's Boston office from 10 High St. to 110 State St. Barnes will continue to provide consulting engineering services to the textile industry, functioning as Barnes Textile As-


NEW INSTALLATION OF D&F SPINNING FRAMES
AT BAY PATH TEXTILES, INC., WARE, MASS.

Compare your wool spinning records with these **"coordinated production"** figures



Profitable mill operation requires thorough, expert planning of both the necessary equipment and the method of operation. Here are positive ways Davis & Furber can help you obtain *such* "Coordinated Production" efficiency — vital in today's competitive market.

ON DAVIS & FURBER SPINNING FRAMES LIKE THESE YOU CAN ACHIEVE:

	Carpet, Felts & Blankets	Apparel & Men's Wear
Front Roll Speeds RPM	150 to 200	75 to 150
Spindle Speeds RPM	2400 to 4000	4000 to 6200

Speed variations according to stock specifications

A Davis & Furber Technical Survey will include:

Recommendations for —

★ *An over-all production improvement plan.*

★ *Equipment additions or changes to match your stock and yarn specifications, together with the investment required.*

★ *Establishment of a preventive maintenance and operating program, to increase efficiency.*

Plus actual:

★ *Set up of equipment "in-the-mill."*

★ *Follow-up to assure peak performance and production.*

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MACHINERY MODERNIZATION • ACCESSORIES, SUPPLIES, SPARE PARTS • TECHNICAL SERVICE & CONSULTATION

sociates, a division of Scovell, Wellington & Co. The activities of the organization in the South are under the management of Robert M. Mitchell, North Church St., Spartanburg, S. C.

James Hunter Co. Expands Southern Sales Facilities

James Hunter Machine Co., North Adams, Mass., has established its recently-acquired Southern division, W. D. Dodenhoff Co. Inc., 745 Lowndes Hill Road, Greenville, S. C., as Southern sales and service headquarters for 2 other Hunter divisions, Thomas Leyland Machinery Co. and Hunter Controls Inc. In line with Hunter's policy of expansion in the South, Ernest Cannity, senior sales engineer of the company, is being transferred from the main plant at North Adams to Greenville. No change in manufacturing locations for any of the Hunter divisions is planned at this time. The main plant at North Adams will continue to manufacture garnett machines and its complete line of wet finishing, dyeing and drying equipment. Psychrometers and other moisture measuring control instruments are manufactured by Hunter Controls Inc., also at North Adams. Leyland expanders and Flex Spools are manufactured at the plant in Readville, Mass. The Dodenhoff division, which produces and distributes Fiber Meter and other automatic blending systems, automatic weighing feeders for garnetts, and other textile equipment, centers its manufacturing, sales and service facilities at Greenville.

Norlander Retires From Norlander-Young Co.

Albert Norlander has retired as a partner in Norlander-Young Machine Co., Gastonia, N. C., and the name of the company has been changed to F. A. Young Machine Co. No changes are planned in the operation, according to Mr. Young, who for a number of years has been in charge of the company's manufacturing plant.

McLean Trucking Acquires Carolina Motor Express

The Interstate Commerce Commission has approved the acquisition by McLean Trucking Co., of Winston-Salem, N. C., of control of Carolina Motor Express Lines Inc. through the purchase of its capital stock. The commission also approved the purchase by McLean of certain operating rights of Vollmer Transportation Inc.

Carolina Motor Express Lines has been managed and operated by McLean Trucking Co. since 1952, under temporary authority of the Interstate Commerce Commission. CMX, as this line is known, is a Class I motor common carrier connecting the Midwest with the Southeast. The operating rights of Vollmer Transportation involve points between New York City and Albany, N. Y., which have been operated as part of the McLean system since 1953, also under temporary authority of the Interstate Commerce Commission. McLean operates over 2,000 units in 12 states and the District of Columbia along the Eastern Seaboard.

Whitin To Acquire Electronics Firm

Whitin Machine Works, Whitinsville, Mass., has voted to acquire all of the outstanding capital stock of Harvey-Wells Electronics Inc., manufacturer of electronic devices. Whitin plans to operate the electronics firm as a wholly-owned subsidiary. Founded 16 years ago, Harvey-Wells is one of the oldest companies of its type in New England and employs approximately 300 people with plant and offices located in Southbridge, Mass. The firm has devoted most of its activities to the research, development and production of electronic devices for the various armed services. The acquisition by Whitin is another step in the company's diversification program.

Binswanger Names Huffines To Head Southern Division

Frank G. Binswanger Inc., Philadelphia, Pa., real estate firm, has named R. L. Huffines Jr., former president of Textron Inc., as chairman of the firm's newly-formed Southern division. The division, which will operate as a separate corporate organization, plans to open offices in North and South Carolina, and in New York City. Mr. Huffines, a native of North Carolina, is a member of the board of Textron Inc. He was president of the Burlington Mills Corp. in New York City before his association with Textron.

Hartford Machine Screw Co. Building Plant In S. C.

A new plant to manufacture textile machinery parts will be established in the Greenville, S. C., area by the Hartford Machine Screw Co. The plant will contain 20,000 sq. ft. of manufacturing space and will employ about 90 people when in full production. Approximate capital investment in the new plant and machinery will be over $400,000. The main plant of the company established in 1876 is located at Windsor, Conn. It is a division of Standard Screw Co. which was formed in 1900 and which maintains offices at Windsor and at Bellwood, Ill. Additional plants are located at Bellwood, Elyria, Ohio, and Seattle, Washington. Construction of the new plant is to be by the Daniel Construction Co. of Greenville.

Dow Chemical Awards Contract To Daniel

Awarding of construction contracts for 4 buildings at The Dow Chemical Co.'s Lee Hall, Va., textile fiber plant has been announced by Arthur E. Young, manager of Dow's textile fibers department. Awarded to the Daniel Construction Co. of Richmond, Va., contracts call for work to begin immediately on the personnel, service and shops, and product warehouse buildings as well as on the foundations of

STOP

lumps in your opening line

It costs nothing to find out if your present equipment is handling your fibers efficiently—and it may prevent poor work, insufficient cleaning, waste, and lost production.

Surveys made by Dodenhoff engineers show that the aprons on over 30% of today's opening equipment are out of date. In many cases, only simple changes of pin sizes or slat respacing were necessary. Call on Dodenhoff for a free check-up on your equipment. And for opening equipment and aprons of unmatched efficiency, always call on Dodenhoff first.

New and reworked Textile Aprons **Beater Slats**
Waste Machine Cylinders **Kirschner Beaters**

W. D. DODENHOFF CO.
INCORPORATED
GREENVILLE, SOUTH CAROLINA

one of the production buildings. All of the work is being supervised by H. K. Ferguson Co. of Cleveland, Ohio, engineers and managers of the project for Dow. Dow has announced plans to produce Zefran, its new synthetic textile fiber, at the Virginia site.

Stowell Engineering Co. Named Agent For Holyoke

Holyoke Machine Co., Holyoke, Mass., has appointed L. C. Stowell Engineering Co., Charlotte, N. C., as exclusive sales representative for Holyoke calender and embossing rolls, as well as special purpose rolls, in the states of Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Texas, Virginia and West Virginia. Lyman C. Stowell, who will handle the sale of Holyoke rolls in the Southern territory, has been identified with the sale and servicing of dyeing, printing and finishing equipment for over 30 years.

Cocker Machine & Foundry To Move To Ranlo, N. C.

Cocker Machine & Foundry Co., Gastonia, N. C., has announced plans to move to Ranlo, N. C., two miles east of Gastonia, as part of a $275,000 expansion program. According to John Cocker III, president of the firm, a new building containing some 40,000 sq. ft. of floor space will be built at Ranlo to house the company's machine shop, warehouse, erecting department and executive offices. A portion of the Cocker operation is already located in Ranlo, the firm having built a new foundry there in 1948. Since that time a cleaning room, sheet metal department and creeling department have been added. Mr. Cocker said he expected the new quarters to be ready by next August.

Davis Named Agent For Economy Balers

A. Benson Davis, manufacturers' agent with headquarters in Charlotte, N. C., has been named representative of the Economy Baler Co. of Ann Arbor, Mich. Economy is an old established company which manufactures presses for baling cotton, wool, yarn, fabric, etc. The firm was formerly represented by The Terrell Machine Co. of Charlotte.

Dexter Chemical Corp. Completes Office Building

Dexter Chemical Corp. has completed construction of a modern office building on land adjacent to its present manufacturing facilities. The brick and steel structure, according to Dexter officials, is the first step in a broad expansion program which will be completed by the first of September. Plans call for a new plant for manufacture of resins and recently-developed synthetic organic chemicals, also completely new research and development laboratories. The executive and general offices were moved into the new building Feb. 1. The recently vacated offices in the plant are being remodeled to give larger facilities to the production and control laboratories and more adequate space for plant supervisors.

Atlas Powder Co. Building $3,000,000 Technical Center

Atlas Powder Co. has broken ground for a $3 million technical center which will enable the company to intensify its long-range basic research program, as well as to expand its technical service to the textile industry. The new center will be located adjacent to the company's general offices in a suburban area near Wilmington, Del. It is scheduled for completion by the end of this year. The center will provide extensive facilities for work across the entire range of applications served by Atlas products, including sorbitol, emulsifiers, detergents, polyester resins and activated carbons.

Metcalf Ad Agency Marks 25th Year

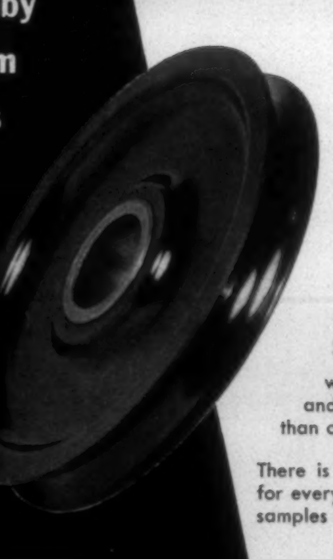
"It's a great time to be 25 years old" in view of new business opportunities, according to George T. Metcalf, founder and president of the George T. Metcalf Co., advertising agency of Providence, R. I. Mr. Metcalf's observation keynotes a mailing piece in which his company pays tribute to its clients on the occasion of its 25th anniversary.

"We've grown a lot since 1932 in size, in strength and in professional skills," Mr. Metcalf notes. "It hasn't been any path of roses, as we look back on the late unlamented depression and the upsets of the war years. But all along, we've been fortunate in our associations and friendships. We know how much we owe to the loyalty of our clients, and to their confidence in us."

Prior to establishing his own agency in 1932, Mr. Metcalf had been advertising manager of Franklin Process Co., yarn merchants and package dyers. Franklin Process, Foster Machine Co. (winding machinery), Ashworth Brothers (card clothing), Arnold, Hoffman & Co. (dyestuffs) and Riggs & Lombard (finishing machinery) are among clients Metcalf has served for all or most of the quarter-century of its existence.

Diamond Crystal Salt Co. Acquires Jefferson Island

Controlling interest in the 37-year old Jefferson Island Salt Co. has been acquired by Diamond Crystal Salt Co. of St. Clair, Mich. Jefferson Island will be operated as an independent division of Diamond Crystal, with the entire sales force and all office and factory employees being retained. The Jefferson Island product line and brand names will also be continued. Jefferson Island, with home offices in Louisville, Ky., and plant and mine at Jefferson Island, La., is the largest salt producer in the South. Diamond Crystal was formerly a division of General Foods Corp. The bulk of Jefferson Island production goes for industrial use in such industries as textiles, heavy chemicals and industrial water softening.



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Self-Lubricating: no oil to drip, gum or freeze

Stronger: won't chip or break in ordinary use.

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Swaged Bearings: won't loosen or wobble . . . and will last many times longer than ordinary sheaves.

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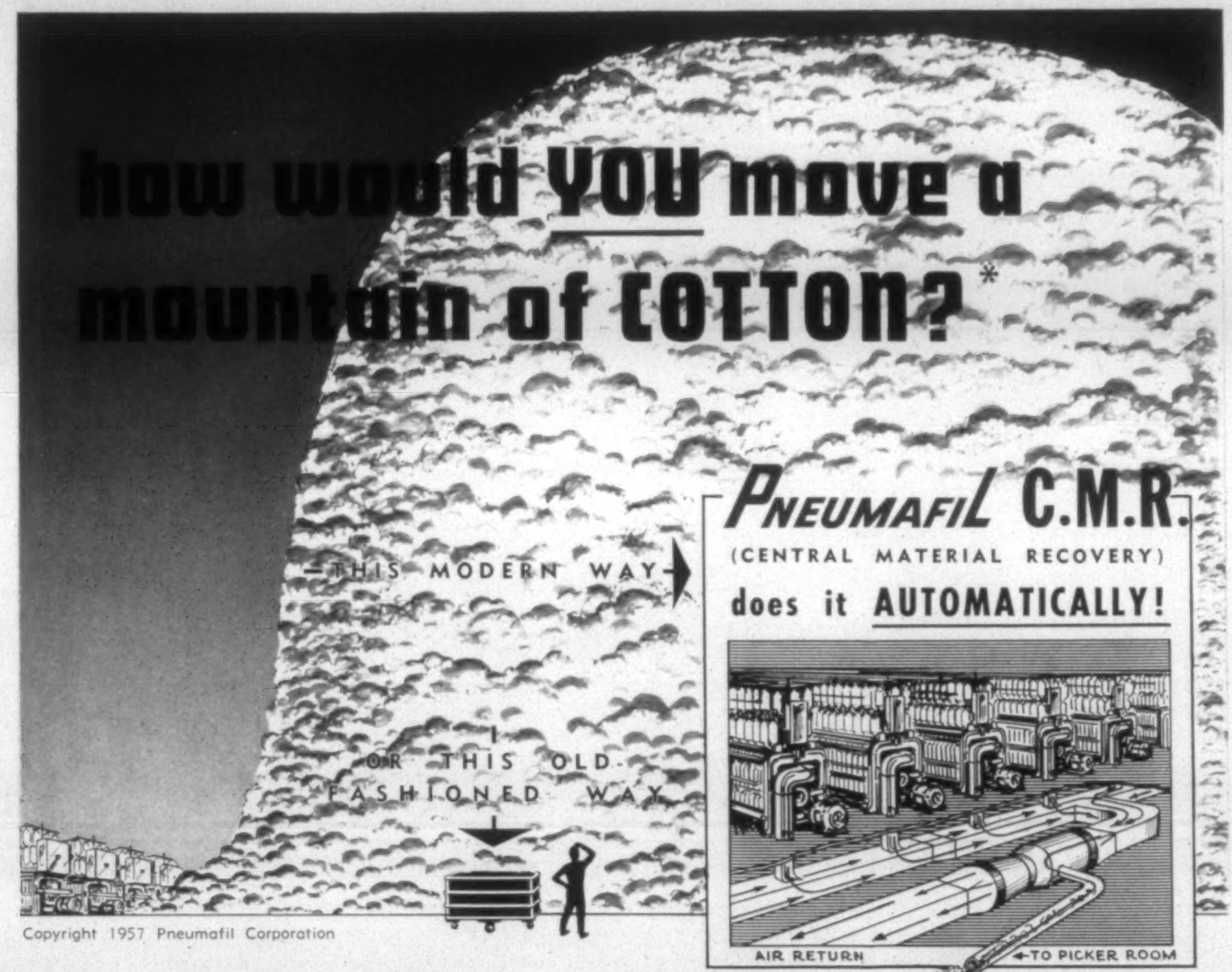
how would YOU move a mountain of COTTON?*
THIS MODERN WAY
OR THIS OLD-FASHIONED WAY
PNEUMAFIL C.M.R.
(CENTRAL MATERIAL RECOVERY)
does it AUTOMATICALLY!
AIR RETURN
TO PICKER ROOM

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FOR SPINNERS ONLY! Pneumafil CMR (Central Material Recovery) means:

AUTOMATION—Fly and ends down fibers are continually and automatically delivered to the picker room (or any desired location) for reintroduction into process.

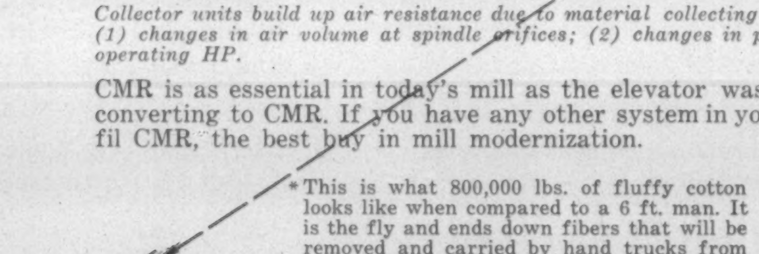
CMR means no time consuming frame to frame cleaning out of individual collector units and the moving of this material by old-fashioned hand truck methods.

PEAK EFFICIENCY—CMR operates at peak efficiency at all times! A constant air quantity and pressure is maintained at each spindle to assure: (1) maximum frame cleaning; (2) positive pick-up of ends; (3) minimum operating HP; (4) least deviation of temperature and humidity.

Collector units build up air resistance due to material collecting on screens. Because of this you have: (1) changes in air volume at spindle orifices; (2) changes in pressure at spindle orifices; (3) increased operating HP.

CMR is as essential in today's mill as the elevator was twenty years ago. Mills are now converting to CMR. If you have any other system in your mill, you should consider Pneumafil CMR, the best buy in mill modernization.

*This is what 800,000 lbs. of fluffy cotton looks like when compared to a 6 ft. man. It is the fly and ends down fibers that will be removed and carried by hand trucks from a Pneumafil Unit System over the next ten years. (100 frames spinning 30's yarn, medium high draft, at 30 ends down per 1,000 spindle hours.)



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textile bulletin

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An American Reporter Looks Objectively At the Problem of Japanese Textiles

By LOUIS C. HARRIS, Executive News Editor, The Augusta (Ga.) Chronicle and Herald

The following is abstracted from a series of nine articles prepared by Mr. Harris after an eight-week study made among Southern mills, in Washington and in various cities of Japan. The study was made on a grant by the Southern Association of Neiman Fellows.

LAST year a mill producing gingham cloth in a South Carolina city closed its doors with the announcement that it could not meet competition from "cheap" Japanese imports. Several hundred persons lost their jobs.

At about the same time in a mountain village near Osaka, Japan, a gingham mill brought production to an abrupt halt. It claimed curtailment of exports by the United States was responsible. Virtually every adult in the town was thrown out of work.

Unbiased persons familiar with the South Carolina mill, including one textile executive, declare it was a sub-marginal operation and would have been forced to close even had there been no gingham imports from Japan.

Demand Cut

Textile authorities in Japan explain that the gingham fashion subsided in the United States last year and the demand from American buyers was cut sharply. As a result, the Japanese mill, which had over-extended its credit in an unwarranted expansion move to supply what proved to be a temporary demand, found itself insolvent when the U. S. fad died out.

Citation of these two instances could be termed oversimplification of a deadly serious issue. It serves to point up, however, that both parties to the issue have apparently been guilty, certainly to some extent, of exaggerating their positions and, in a large measure, to thwarting a reasonable and satisfactory settlement of a disagreement that could have worldwide repercussions.

Behind the issue is a contention by the American cotton textile industry that it needs protection from the import of Japanese fabrics, yarns and made-up garments. The arguments of the American industry are well known.

But what about the other side? Spokesmen for the Japanese cotton textile industry and government officials as well declare that Japan must trade to survive. They cite the huge economic strides taken by Japan since its defeat by the United States in World War II, pointing out that much of the credit for Japan's solvency today lies with its textile exports. Without that solvency, Japan, which even a Southern senator admitted was the free world's principal bastion in the Far East against Communism, could conceivably fall within the economic and ideological orbit of Soviet Russia.

Cite Possible Loss

From a more tangible standpoint, however, the Japanese point to the huge amount of raw cotton and other agricultural products they purchase annually from the United States. They declare any curtailment in Japanese production with its resultant loss of American markets and American dollars will accrue as a loss not only to Japan but to the cotton farmers and over-all agricultural economy of America as well. Supporting that argument is Frank Waring, chief economist in the American embassy in Tokyo.

In 1955, he said, Japan purchased imports from the United States amounting to $780,000,000. Japanese exports to the U. S. came only to $459,000,000. Included in the purchases from America, he added, was $125,000,000 worth of raw cotton. In the same year, cotton textiles sold by Japan to the U. S. amounted to $65,000,000.

In the cotton year ending next August, Mr. Waring said, Japan's purchases of the staple from America "probably" will more than double the figure for the previous year while its exports of finished textile products are expected to remain approximately the same as in 1955.

"If we want to preserve this market for our products," he added, "we must trade with the Japanese to permit them to earn dollars. The time comes when we have to consider the whole trade picture and its effect on the nation, as opposed to the loss of two or three mills."

Sen. Strom Thurmond of South Carolina, readily admitting Japan's importance to the United States as a barrier against the movement of Communism into Southeast Asia, nevertheless said he felt America's first obligation was to domestic industry. "I certainly am in favor of world trade," he said, "but the Administration should take steps to keep domestic industry from being destroyed." He added: "In the current instance the textile industry of America was being asked to bear the brunt of Japan's economic rehabilitation."

The normal question for the average American is "who is right and who is wrong?"

Therein, say non-textile authorities on the subject, lies the crux of this struggle between American's fourth largest industry and Japan's first. Both are right and both are wrong, yet neither is right and neither is wrong. As for a solution, that depends upon which side is asked.

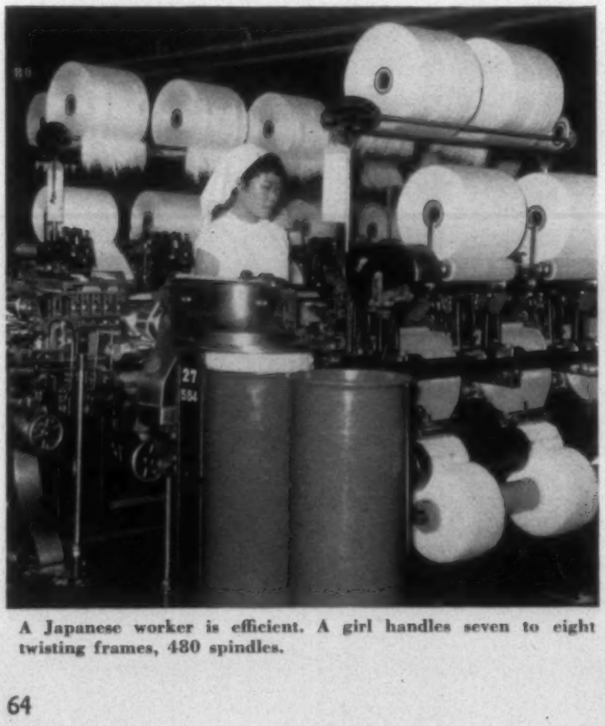
It seems to add up to the fact that here is no clear-cut black and white picture. There are only varying shades of gray. And the off-tones, confusing of themselves, are further distorted by the massive amount of propaganda spewed out by both camps. Add to that the basic fact that American industry and American workers must not be permitted to become pawns in the game of world politics, nor must a face-losing and economic retrogression confront a Japan being wooed by Russia.

A fear of the future, more than a current injury, apparently has been the motivating influence behind the campaign of the American Cotton Manufacturers Institute to limit Japanese textile imports into the United Staes.

Industry executives have said the American textile industry can absorb the amounts of fabrics and made-up garments shipped here during 1955 by Japan. But because imports have steadily increased over the past several years, they want to hold future shipments from the Japanese to the '55 level.

Immediately after World War II, industry in Japan was in shambles. Under the aegis of Gen. Douglas MacArthur, one of the first moves by America was to assist Japan to re-establish its textile potential. Rehabilitation of Japan, in the order of priority, called first for food, then clothing, then housing and, finally, rebuilding of the nation's transportation system.

With a population of almost 90,000,000 concentrated into a land area approximately the size of Montana, the Japanese always have been faced with a feeding problem. Only 16 per cent of the land is arable. As a result, the nation is virtually altogether dependent upon import of agricultural products. To obtain funds with which to make these purchases, Japan has had to develop, first, its light industry and then its heavy and chemical industry. By importing raw materials which are not available within its territory, Japan has found foreign markets for its products, thereby expanding its industrial structure.



A Japanese worker is efficient. A girl handles seven to eight twisting frames, 480 spindles.

This basic fact became more pronounced after the war. Japan's huge population is 24,000,000 more than it was in 1930, and is currently increasing at the rate of well over a million a year. Moreover, as a result of the war, Japan lost 44 per cent of its territory and some 25 per cent of its accumulated wealth. In addition, all economic interests in Manchuria, China and Southeast Asia had to be abandoned.

Before the war, the yearly average of Japan's total exports to China, including Manchuria, was 18 per cent and that of its total imports from these areas was 11 per cent. In 1939 it reached the high peak of 32 per cent, nearly a third of Japan's total exports. Now, both the exports and imports have dwindled to what is termed a "negligible" six per cent because of Japan's commitment to America not to ship strategic materials to Red China.

Stable Market

Prior to the war, China—which annually purchased almost 400,000,000 yards of piece goods—was a stable market not only for Japanese textiles and sundries but also the main market for Japanese steel and iron, and ships and machinery. It was the principal supplier to Japan of soya beans, salt, coal, iron ore, wood and oil.

Most of these products are now purchased elsewhere, but Japan, its officials point out, is at a disadvantage because freightage from countries more distant than China is much higher, resulting in an increased cost for Japan.

S. Ohki, chief of the textile export section of the textile bureau in the Ministry of International Trade and Industry, said Japan last year sold only 500,000 square yards of velveteen to Red China along with small amounts of poplin and broadcloth. "We could sell in greater quantities," he added, "and thus relieve the necessity of expanding our markets in America, but the Chinese Communists tell us they will purchase more soft goods only if we will also sell them heavy machinery and other strategic materials."

Mr. Ohki said some members of the Socialist Party and some of Japan's labor union leaders want Japan to trade on a wider basis with Red China, not necessarily to gain pound sterling but more for an exchange of greatly-needed ores and agricultural supplies. "Because of our commitment to the free world, however," he added, "we are not willing to do business with Red China."

It was to offset its losses of markets in China and to help it regain some of its Southeast Asian markets that the United States sponsored Japan's entry into the General Agreements on Tariffs and Trades.

The cut for textiles, Frank Waring pointed out, was effected because "when you are making a trade agreement you must take into consideration what a given country can best produce. Pending redevelopment of its other industries, Japan is concentrating on textiles."

It is true that all members of G.A.T.T. did not accord

Japan "favored nation" treatment, which would have entitled the Japanese to all the trade equality that was given by America. Just recently, however, Australia said it was willing to extend that treatment and lower its tariffs on Japanese textiles provided Japan would purchase Australian wheat. Therein lies a bugaboo, however. Under U. S. Public Law 480 by which Japan buys much of America's surplus agricultural commodities, more than 15 per cent of America's wheat exports are to Japan. If the latter turns to Australia, American farmers will suffer.

Thus, it is in the light of the foregoing—and for diverse other reasons—that Japan leans more heavily upon the United States markets for textile exports than before the war.

Possessed of an inherent Oriental realism lost, in many instances, on Westerners, the Japanese Government instructed banks of Japan to extend all the credit textile mills need to further their expansions. Many of the mills are in precarious financial condition, and many have gone bankrupt, but the credit continues — because government officials know that Japan must trade to survive and, for the time being at least, the textile industry is easiest to expand.

Of greatest concern to the American textile industry—in its struggle with Japanese imports—is its knowledge that Japan can produce almost any given product at a lower cost. It cites what it terms the "dumping" onto the American market in 1954 of large amounts of velveteen and gingham, of women's blouses and cotton pillow slips.

The effect of the imports so depressed the American market, officials claim, that profits to the American mills were seriously cut and some mills were forced to go out of business.

American textile executives initially said Japanese imports should be held to 220,000,000 square yards because that was the 1955 amount. The Japanese, however, said while that figure represented the cotton content of fabrics, yarns and made-up garments reaching the U. S. in 1955, another 50,000,000 square yards were in transit and they wanted their export figure of 270,000,000 as the base. When the Americans refused to give in the Japanese then said they were willing to compromise at 235,000,000.

Only Two Per Cent

Either figure comes only to approximately two per cent of America's production of 11,000,000,000 square yards and is an amount American textile executives have said they can absorb without great injury.

But another argument was advanced by the American industry. It wanted Japan to impose ceilings not alone on over-all exports, but upon specific items, limiting Japan to five per cent of America's production in any one cotton textile category.

On the surface, said the Japanese, that sounded generous. But they cited one hitch. It is that Japan produces only a limited number of items for export in quantity. If a five per cent ceiling is imposed upon all items, Japan cannot come close to exporting the two per cent of the over-all U. S. production the American industry is willing to accept.

The five per cent ceiling, Japanese feel, was suggested as a means of protecting the American manufacturers of gingham and velveteen and to permit manufacturers of all fabrics to set up their production schedules without fear of Japanese "dumping" in the future. What puzzled Japanese executives, however, is that their mills are not geared to produce many export items and they claimed their concentration on the two controversial fabrics—along with the blouses and pillow slips—came about simply because of an American demand for those products.

Kojiro Abe, president of Japan's largest textile organization, the Toyo Spinning Co., and chairman of the All-Japan Cotton Spinners Association—the Japanese equivalent of the American Cotton Manufacturers Institute—said U. S. accusations that the Japanese are trying to force American mills out of business "simply are not true."

"I think the rumpus comes from the fact that Japanese imports just about matched U. S. production," Mr. Abe said through an interpreter. That came about, he added, because much hand labor goes into the manfacture of velveteen "and anything in the United States which requires hand labor is costly."

"Even if left alone," the Japanese textile executive said, "I feel the velveteen segment of the American industry would go out of business. We are simply trying to replace what the United States mills cannot do themselves because of the high cost."

Mr. Abe declared Japan could not compete with America where mass-production is a factor and, as a result, was utilizing its mass machines to produce domestic textiles. Its hand labor—which he readily admitted worked cheaper than do American workers—is used more for export products.

"If Japan is restricted in its exports to America," he said, "the gap will be filled by Italian-produced velveteen."

Under its latest plan, announced Jan. 16, the Japanese are willing to restrict their 235,000,000 square yards of exports to the United States to 113,000,000 yards of cloth

Abe, Tawa

The Messrs. Big of the Japanese cotton textile industry. Kojiro Abe is president of Toyo Spinning Co. and chairman of the All-Japan Cotton Spinners Association. Of the American proposal to limit Japan's exports to the U. S. to five per cent in each category of American production, Mr. Abe said: "That is like giving us a fish pond with no fish." He argues that Japan does not attempt to export all categories produced in America. Yasuo Tawa, director-general of the All-Japan Spinners Association, says Japan is simply exporting to America those items the U. S. mills find expensive to produce.

and 112,000,000 square yards of made-up goods. Velveteen exports would be limited to 2,500,000 square yards; gingham, 35,000,000; and combed yarn fabrics to 26,000,000 square yards.

Although the program would run for five years the specific limits on velveteen, gingham and combed yarn fabrics apparently will be discussed again after 1958. The latest agreement set limits for them only for 1957 and 1958.

As for gingham, U. S. production in 1955 came to approximately 250,000,000 square yards. The Japanese exported 48,300,000 yards, or a little less than 20 per cent of American production. That amount, as in the case of velveteen, could, officials admitted, affect American prices.

In presenting the Japanese case, however, Yasuo Tawa, director-general of the All-Japan Spinners, and also speaking through an interpreter, said: "Gingham was more or less out of style until two or three years ago. When it returned, the United States mills were unable to supply the demand. We started filling some of the large demand which swept America."

Mr. Tawa, considered by American officials in Japan to be an astute businessman, pointed out what appeared to be an obvious fact not generally publicized in the United States. The Japanese do not simply ship fabrics and made-up garments to America, hoping they will be paid later. Every shipment is an order from a U. S. buyer.

"Your converters in America," he said, "are holding a club over the American mills and saying 'if you don't lower your prices we can get Japanese goods.' In our case it is simply a matter of exporting what the United States finds expensive to produce."

In their exports, the Japanese have been charged with "copying" designs. To eliminate that accusation, they have created a "Textile Color Design Center," an organization unique in the world. The center scrutinizes every fabric design produced in Japanese mills. It registers each and prohibits the copying of any that are registered with it.

Last September alone it received 17,393 designs, accepted 8,156 and rejected 9,237. Registrations protect manufacturers three years, after which they may resubmit designs for further protection.

Tsuneo Komura, chief of the textile bureau of the Japanese Ministry of International Trade and Industry, takes time off from dictation to pose. Mr. Komura said that Japanese are not so willing to limit their exports, but do want to "keep peaceful relations" with the United States. He is most critical of state laws in the U. S. which pertain to Japanese textiles.

Galey and Lord, New York commission merchants, published a full-page newspaper advertisement on Sept. 12 in which the concern congratulated the Japanese in establishing the design center. After citing the criticism hurled at Japanese mills, the ad placed the blame on "the American buyer, whether importer, wholesaler, converter or garment manufacturer—as it is he who nearly always specifies the exact pattern and color to the Japanese manufacturer."

Said the ad: "The Japanese are not making specific patterns in the mere hope of securing orders later. They are, rather, manufacturing to the exact pattern provided to them by U. S. buyers."

Half 1936 Figure

During 1955 Japanese mills produced 3,600,000,000 square yards of cotton piece goods. Of that amount, 1,200,000,000 yards were exported, the U. S. receiving about 150,000,000. Japan's export figure is just about half what it averaged in 1934-36, although exports to the United States have trebled.

The question seems to be how far America can go in helping Japan absorb that 50 per cent loss in world markets, virtually all of which was concentrated in Red China—where we refuse to permit Japan to trade in quantity—and in India, which now has its own booming textile industry.

Historically, the South has, until recent years, been the strongest advocate in the United States of free trade. A complete metamorphosis has set in, however, and today the cry is for high tariffs to protect the South's mushrooming industrial economy.

Caught between the free trade concept—which worked so well in the past to their advantage—and the industrial development which also serves them well, are the South's cotton farmers.

Almost without exception world trade in cotton has averaged between 12 and 13 million bales annually for the past 20 years. During that period the United States has exported roughly 4,000,000 bales each year. While the cotton belt is shifting from South to West, production of the staple in Southern states remains high and cotton farmers are still somewhat dependent upon foreign demands for what returns they realize from their product.

Objectives, as outlined by G.A.T.T., are to help raise standards of living, to achieve full employment, to develop world resources, to expand production and exchange of goods, and to promote economic development. The American Cotton Manufacturers Institute argues that G.A.T.T., with its ability to raise or lower tariffs, is usurping functions rightly belonging to Congress. Many thinking Americans, not associated with the textile industry, concur in that belief. There are just as many who argue to the contrary, claiming Congress has never had the power to pass legislation or trade policies for foreign countries. In the case of the United States they cite the "escape clause" of our Reciprocal Trade Act which permits domestic industries hard hit by foreign imports to seek remedial aid through the Tariff Commission, an agency of the Executive Branch of our government.

Virtually all Americans in Japan, those in governmental work and those in the import-export business, agree that tariff cuts inflicted by G.A.T.T. on textile products were too large. But they insist that restoration of the duties will create a psychological problem.

Lewis E. Gleek Jr., consul general of the United States at Osaka and Kobe, Japan, was among those who said he felt the textile industry of America was being made to bear too great a brunt of Japan's economic rehabilitation. Nevertheless, he said, he believed G.A.T.T. will provide benefits, even if not initially.

"Maybe one sector loses in the first round," he said, "but another fellow sells more and buys more—and the rising volume of trade throughout the world leaves all of us better off." Mr. Gleek said while discussions between Japan and America bypass G.A.T.T. "our partners in G.A.T.T. are fairly realistic people and will likely say it is better for Japan to accept 'self-imposed' controls than if America were to pass legislation and destroy the structure of G.A.T.T."

Lays Ground Rules

It was Mr. Gleek who declared that if the Japanese break their pledge to limit their own exports to America, Congress could then act. In that case, he added, the Japanese would lose face for having broken their word. If America imposes quotas after sponsoring Japan in G.A.T.T., the United States would lose face.

"Too," said the U. S. diplomat, "if we slap on legislative controls, the effects world-wide, will be serious. We will be cutting the ground from beneath the feet of our strongest friends in Japan, the leaders of the Japanese government."

Mr. Gleek took the attitude that mill executives in America have not been hurt economically, but that only the mill workers have felt the impact of Japanese competition "because of a lack of confidence on the part of the mill owners. The textile industry is going to continue to take a decreasing share of the national income unless it modernizes—and that is my belief, even if Japanese competition ends," he said.

Valid Argument

Carl Campbell, an official of the National Cotton Council, said, however, that he felt the American textile industry had a valid argument. "If it didn't," he added, "I do not believe it would have spent so much time and argument on the matter—and I do not believe the Japanese would have agreed to an imposition of quotas on themselves."

Mr. Campbell, in Japan on one of his periodic visits, said he felt no one had taken an objective view of the situation, "certainly not the Administration." How, he asked, may the United States say it is involved in free trade when it operates under the subsidy plan? It is not possible, he added, to have liberalized trade if part of our economy is controlled. Mr. Campbell said he felt modernization might enable American mills to meet the obstacle of "quality" but other problems, particularly low-price competition, exist. The possibility of legislative controls, however, was seen by virtually all observers as having repercussions of grave consequences.

The Japanese Mill Worker

No picture of the Japanese textile industry would be complete without a discussion of the Japanese textile worker.

By American standards he is poorly paid. By Japanese standards his wage is average or above. He is subject to regimentation which would be distasteful to the American worker.

His living quarters, as good, or better, than those of other Japanese workers engaged in manufacturing, would not possibly be considered adequate for the average American.

But in two categories, the Japanese and American workers appear to stand on common ground: The Japanese worker employed in the larger mills is provided the same ample space, controlled atmosphere, adequate lighting, cleanliness and sanitation accorded his American counterpart. In the other instance, impartial observers say he is just as efficient as is the American.

The post-war position of the Japanese textile worker has been characterized by an improvement in working conditions and living environment, by a substantial increase in wages and by a greater confidence in the industry.

Employment in a large cotton spinning mill is considered one of the most attractive vocations for new graduates of junior high school, and by law no Japanese boy or girl may enter a factory as an employee until the nine years of education through junior high school have been completed.

High Employment

Well over a million persons are employed in the textile industry of Japan, with cotton textiles accounting for a goodly

Volleyball is popular with girl mill workers. They hurry through the noon meal in order to get in a game.

portion of the over-all figure. And, of the total in spinning and weaving, female workers out-number male employees by almost three to one.

Immediately after the war—and with the encouragement of the American government to the extent that U. S. Army officers sometimes served as organizers—labor unions began a resurgence. As a result, the General Council of Japan Trade Unions (Sohyo) was formed. In 1953, however, because of what members felt was the leftist tendencies of Sohyo, the Japan Federation of Textile Workers Unions (known as Zensere) seceded from that group and joined with several other unions in organizing the Japanese Trade Unions Congress.

Edward Skagan, a former American union organizer who is now labor attache in the American Embassy in Tokyo, estimated that approximately 6,000,000 Japanese are members of the various unions and pointed out that unions are encouraged by management to the extent that the latter generally provides headquarters on company property for them.

While citing the recovery of the textile industry, the Ministry of Labor points out that Japan's road to economic self-support is beset with "extremely difficult problems," which stem from loss of territory and, to some degree, as a result of changes in the world market situation.

Pointing to what it called "prejudices and misunderstandings as to the wages and other working conditions in our textile industry," the ministry declared that wages "can stand comparison with the general wage level of the country; that in terms of purchasing power of wages the disparity in nominal wages, as compared with international standards, is substantially reduced; that conditions of labor, including working hours and holidays with pay, are excellent; that the relationship between labor cost and productivity is governed by the characteristic structure of Japanese economy; and, finally, that now more than ever the measures for enhancing productivity should be pushed forward and efforts continued for improving working conditions, especially wages, if Japan is to attain the goal of self-supporting economy."

Sharp Issue

Taking sharp issue with charges by the American textile industry that its Japanese counterpart employs "cheap" labor, the ministry said "the unfairness of any wage becomes an issue only when the wage falls far short of the standard generally recognized within the country where it is paid."

Officials cited that among the "Big Ten" spinning companies of Japan—and their pay scale is higher than in the other 117 mills—the average wage paid male workers is $69.25 a month, for female workers $27.75. The average for manufacturing as a whole is $55 a month for the men, and about $22 for the women.

Fringe benefits, just as they do for the American employee, provide a larger actual remuneration than do wages.

Bonuses are paid semi-annually and are negotiated by the union. Many mills, however, pay more than is demanded by the union, generally an amount equivalent to more than a month's pay. Korijo Abe, one of Japan's leading textile executives, estimated fringe benefits amounted to "about 25 per cent of wages—and that is being conservative."

Major Difference

A major difference between the American and the Japanese mill is that in the latter virtually all unmarried employees—and many of those with families—reside within the mill compound. The resultant saving in living costs is, obviously, great.

Young Japanese girls, knowing they will probably have better housing and food than they would at home, and be able to set aside a large portion of their wages as savings, strive to obtain textile mill jobs. Owners know the girls will expect to work only five or six years, enlarging their education and, at the same time, gaining a dowry with which to get married.

They know, too, that in addition to their wages and bonuses, they will receive a severance pay roughly equivalent to four months salary and, if they become married within three months after leaving the mill, they will receive an additional dowry allowance of between $40 and $55, depending upon the length of their employment and their highest salary.

While all wages and benefits which accrue to Japanese workers probably do not add up—in cold dollars and cents to the amounts paid American workers, the Japanese Labor Ministry argues that the basis of comparison should not be on "cold" wages but upon their purchasing power.

'Stay Here, Yank'

The attitude of the Japanese Government and, in the main, the average citizen, is pro-American. However, there are forces working to undermine that feeling. They operate directly from the Soviet area, indirectly from America itself.

N. Nakayama, deputy director of the Ministry of International Trade and Industry, attributes the attitude of his people to Americans to the impressions they gained when U. S. forces moved into Japan immediately after the war.

"Our feeling toward the United States," he said, "is closely associated with the occupation. Many Japanese thought many awful scenes would develop when your troops arrived. We knew, as losers, we could expect looting, plundering and rape. But your soldiers were kind, they gave us a good impression."

Insofar as Japan's trade picture is concerned, Mr. Nakayama said: "Occasionally we must deviate from what seems to be a fixed pattern of trade with the United States so we may help ourselves with other nations, but Japan wants to—and I hope will—remain in the orbit of the free nations."

Nakayama's concern was expressed in much the same manner as was that of virtually every Japanese government and textile official. It was that if America, by legislation, limits Japanese imports into the United States, it is likely that every country in the free world will take the same "remedial" acion.

He admitted Japan could absorb some of any loss to the U. S. market by enlarging its trade with Australia and China. As to the former, however, it will necessitate Japan purchasing greater amounts of Australian wheat—to the detriment of U. S. farmers. Where China is concerned, the purchase by that nation of Japanese soft goods in any large quantities is contingent upon its privilege to buy heavy machinery and strategic materials—and the United States opposes the sale to China of those items.

Although most Japanese officials pointed to Japan's imports of U. S. products as a basis for American acceptance of Japanese exports, Sukemasa Komamura, president of the Gosho Co. Ltd., one of Japan's largest import concerns, said he did not think the United States should purchase Japanese textiles "just because Japan buys U. S. cotton."

Mr. Komamura said Japan is producing better quality now "and importers—and merchants—in the United States are eager to obtain Japanese textiles."

Conscious of the American charge that Japanese products are "cheap," Mr. Komamura said an organization has been established in Japan to look into the possibility of studying the American price structure for cotton textiles.

"Many hard feelings could be spared," he said, "if we can adjust our prices to match those of your mills. Then it will not be a matter of undercutting but competition based upon quality." Mr. Komamura said a "problem" is the American anti-trust law which would prohibit the two industries "getting together." He saw as a possible solution, however, the establishment of an office in New York where "an experienced man could report to us from time to time upon the style and price trends in the U. S."

Great Diversification

What the Japanese apparently plan to do now is to attempt greater diversification of their exports so as not to injure any one segment of the American cotton textile industry.

L. D. Cullings, manager of the Tokyo branch of the First National City Bank of New York, said the Japanese have not been imaginative and have concentrated on any item which happened to be in popular demand in the United States. "The solution," Mr. Cullings said, "is for Japan to diversify—and stick to it."

Because the Japanese do not want to lose face, Mr. Cullings said he believed "their word can be taken."

He, as did every American government official, business man and newspaper man in Japan—almost without exception—took issue with what he termed the "discriminatory laws" of Alabama and South Carolina which makes it compulsory for retail merchants selling Japanese textiles to so state by placards in their windows.

"Irritants"

The Americans in Japan saw those laws simply as "irritants" and as no solution. Most agreed they were merely "political gestures which have backfired in at least two ways":

(1) They have greatly incensed the Japanese, who see a "loss of face" in their enactment after America had held itself out as Japan's friend; and (2) they appear to have served as a stimulant for the purchase of Japanese products by American housewives who are seeking a bargain.

Adoption of similar laws by other states, they added, could result in Japan building up public opinion against American products to the detriment of our export trade to the Far East.

Despite Japanese assurances that they want to live and let live, where trade in cotton textiles is concerned, the simple fact remains that they are in a position—if left unfettered—to seriously injure the American industry. They have, in most instances, more modern equipment; they make efficient use of their labor; they have a wage differential in their favor, and they obtain their raw materials at from four to five cents a pound cheaper than do American mills.

It should be obvious, therefore, to every American that something had to be done to help the domestic industry protect itself, continue its production schedule, maintain its huge employment roles, and, if possible, expand its wage levels.

Following Japan's most recent proposal, most American mill executives, muffled their complaints. The new plan, they said, is worth giving a fair trial, and apparently they are holding in abeyance, for the time being, at least, renewed efforts to gain restrictive legislation.

What the A.C.M.I. seeks to protect is an industry which ranks fourth in America. It employs more than a million persons, operates directly in 39 of the 48 states, and pays out in excess of $3,000,000,000 a year in wages and salaries.

Products made and shipped by the industry exceed $12,000,000,000 annually and are sold at prices below the wholesale index for all industrial commodities, based upon prices prevailing during 1947-1949.

Total capital assets as of March 1955 amounted to $8,633,000,000, and the book value of plants and equipment was placed by the Federal Trade Commission at $5,668,000,000. Stockholders' equity was given a book value of $6,103,000,000. The industry buys annually $800,000,000 worth of chemicals, $430,000,000 worth of miscellaneous goods from small industries, and, in a typical year, its expenditures, according to the Bureau of Labor Statistics, will exceed $105,000,000 for fuel and power; $186,000,000 for transportation; $25,000,000 for starch; $31,000,000 for packing materials; $20,000,000 for paper products; $16,000,000 for paint; $14,000,000 for electrical supplies; and $7,000,000 for hardware. In addition, it is the

A careful check on fabric designs is maintained by Japan's relatively new Textile Color Design Center. The only one of its kind in the world, the center has a number of experts who determine if any new design is a copy of a current one. If it is, it cannot be registered and produced by a Japanese mill. The center was set up to eliminate charges that Japan was copying other designs.

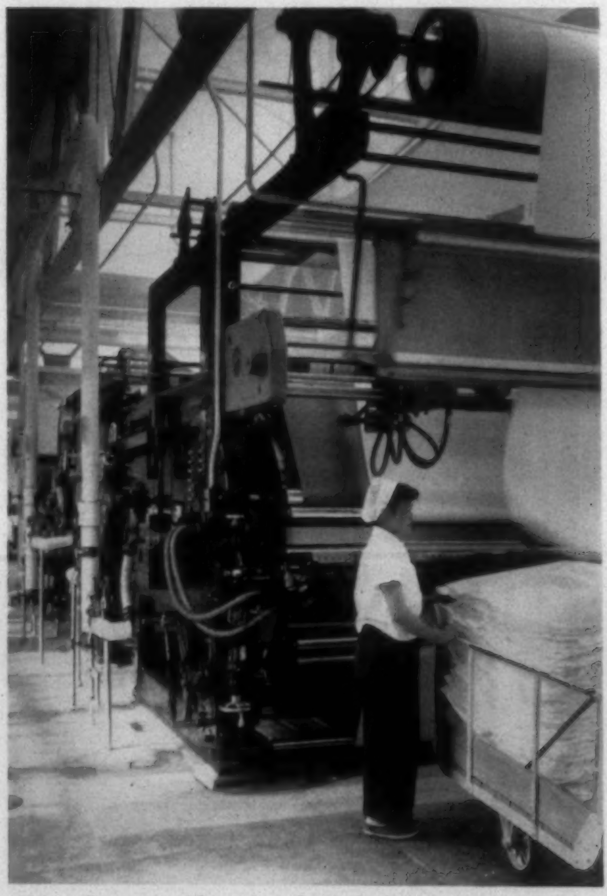
prime supplier of materials to the garment industries with their total of more than a million employees.

The American textile industry also, in the crop year ended July 1955, purchased 8,800,000 bales of cotton, 98.4 per cent of which was American-grown. It paid American farmers nearly $2,000,000,000 last year. American mills pay large sums for new equipment, averaging annually since 1946 expenditures of about $460,000,000 a year.

Efficient Campaign

On the basis of its worth to the American economic scene, and in the face of huge cuts in duties on Japanese imports imposed by the General Agreements on Tariffs and Trade in 1955, the U. S. industry turned last year to Congress. On the crest of a well-organized and highly effective public relations campaign engineered by A.C.M.I.'s efficient and dynamic vice-president and director, Robert C. Jackson, a move to limit Japanese imports by legislation failed in the U. S. Senate by only two votes.

The altogether unexpected close vote apparently frightened both the Japanese and American Governments. It was last September that the Japanese announced they would "strengthen" the restrictions they previously had placed upon themselves as of Jan. 1, 1956. The announcement was made simultaneously in Tokyo and Washington, and presented a curious problem for newsmen. The Japanese statement struck at the Alabama and South Carolina laws "discriminating against" their goods and declared that "American cotton dealers are trying to force the political parties to adopt restriction of Japanese cotton goods as one of its election promises."



Young Japanese girl receives finished cloth in one of Japan's large finishing plants.

The statement released by the U. S. State Department made no reference to politics and simply said, insofar as Alabama and South Carolina were concerned, that "the action now contemplated by Japan is based on the condition that all feasible steps will be taken by the United States Government to solve the problem of discriminatory state textile legislation and to prevent further restrictive action . . ."

In essence, the Japanese said they realized the American campaign was stepped up "partly because of an increase of some items" which had been excluded from the restrictive list announced in January 1956.

They added they would hold future exports to the 1955 level. The statement said "some items likely to cause pressure on the U. S. domestic industry will be subject to strict regulations. Velveteen and ginghams, already restricted, will be further cut." (The State Department translation read: "Will be subject of special study for further reduction.")

In their announcement, the Japanese also said "shipments will be made evenly in the year to be divided into four trade seasons, so that no excessive shipments will take place in some particular period," and added that the plan would continue for several years "but will be subject to re-examination every year."

On Jan. 16, they made the new proposal. Essentially, it is the same offered last September, although total yardage was placed at 235 million; ten million less than before. It also proposes close scrutiny of velveteen and gingham exports and other types of fabrics and made-up garments to which the American industry took exception.

Caught on the horns of the well known dilemma is the Eisenhower Administration. It is conscious of its obligation to domestic industry: a number of close friends of the President are top-flight textile executives, particularly some associated with New England mills. At the same time, the Administration is committed to more liberalized world trade, to G.A.T.T. and to a treaty with Japan by which the latter has been accorded "favored nation" treatment.

The Administration, obviously, wants no legislation which would cause the United States to suffer loss of face with Japan and among the other small, but free nations. It apparently believes that a strong Japanese economy—and a strengthened economy for all non-Communist nations—will redound to the benefit of all Americans.

Similarly, it is obligated to protect American commerce and industry.

Presidential aides are hard at the job of trying to tread a middle course. They hope to find a reasonable and satisfactory solution before American public opinion, understandably concerned more with what domestic mills declare to be their immediate plight than with the intangible of a world's future, causes Congressional leaders to enact restrictive legislation.

Arbitration—not legislation—appears to most impartial observers as the most satisfactory means of resolving the differences existing between the American and Japanese cotton textile industries.

Persons here and in Japan seem to feel arbitration will perform the greatest good for both industries and for

When off duty, Japanese girl mill workers may attend school, take standard high school courses and cultural subjects as well. Here several are being instructed in the tea ceremony, a highly ritualistic affair and a social "must."

America as a whole. They see discussions as possibly assuming one of several forms:

(1) A "get-to-gether" between leaders of the two industries in a "controlled violation" of the anti-trust laws of both the United States and Japan.

(2) A government-to-government parley with all the overtones of a diplomatic negotiation.

(3) A meeting of Administration experts with heads of all the top U. S. industries in a move to have some not presently affected by Japanese imports assume a portion of the "burden" the cotton textile industry claims it shoulders alone.

(4) Acceptance of the latest Japanese self-limiting plan, with careful scrutiny by customs officials to insure Japan does not violate its agreement.

Like the United States, Japan has an anti-trust law. As realists, though, the Japanese are permitted to by-pass their law if it proves expedient to do so. In recent months, a German textile mission to Japan worked out agreements with the Japanese industry—with the knowledge and blessings of the Japanese Government.

"If some of the leaders of our textile industry were to go to Japan on such a meeting," an American in Japan said, "the Justice Department would be waiting at the docks for them when they returned to the States."

Meeting Favored

As did several others, however, this same person said he felt such a meeting between the heads of the two industries could be fruitful, permitting an accord by which Japan could export to the United States only those items American mills find expensive to produce.

There are many ramifications admittedly, to such a plan. Among them would be the problem of conversion by mills affected. Governmental aid might be necessary, but advocates assert the money involved would be well spent if it served the dual purpose of providing protection for the future solvency of Japan and the current well-being of the American textile industry.

Now Undertaken

As for government-to-government parley, the Japanese insist that is exactly what has been taking place. The American Government denies that it is. The State Department claims it has played no official role, but simply acted as "arbiter" for the U. S. cotton textile industry. But it is puzzling to the Japanese that "suggestions" from the U. S. industry arrive in Japan via State Department cables. They looked upon the series of "suggestions" as bona fide negotiations.

The Administration apparently feels that if it acted openly it would be called on by the pottery industry, fish

As in American mills, finished cloth is inspected before it is directed to market. Here a group of workers are wrapping bolts of cloth for shipment.

industry, toy manufacturers and others which are feeling an impact from Japanese imports. Strict curtailment of foreign imports, leaders obviously feel, could lead to a complete breakdown in the Administration's "free trade" concept. It is counting heavily on that concept to bring about restoration of higher living standards for all free nations of the world.

To offset charges by the cotton textile industry that it is being compelled to bear the brunt of maintaining Japan's economic solvency, some observers suggest the Administration call on all American industry to share the load. That could be accomplished, they say, by importing some Japanese automobiles, chemicals, synthetics and other products not now received in quantity, keeping Japan's imports at the same—or higher—monetary level but without concentrating on any single product.

Most Feasible Plan

Of them all, however, the most feasible plan seems to be acceptance, for the time being, at least, of Japan's self-control agreement.

Japanese textile officials have promised to hold their exports this year to a level approximating shipments in 1955.

Last September, when the Japanese announced that proposal, American industry leaders acclaimed it as enabling them to plan production schedules with a greater measure of confidence. Many mills raised wages.

Then, apparently, the Americans reconsidered. Some felt wage increases were not justified on the basis of the Japanese proposal alone. They said privately the wage hikes were politically inspired and were given simply because the Japanese announcement was made here through Sherman Adams, assistant to President Eisenhower, and were designed to help Mr. Eisenhower in the November election.

Their subsequent dissatisfaction also apparently stemed from a belief that they place themselves in the position of being altogether dependent upon Japanese integrity. They wanted legislation as a control on imports.

At the moment, the situation apparently has eased. Spokesmen for the American industry have indicated they are willing to "go along" with the latest Japanese proposals.

Many American officials in Japan, as well as newsmen there, feel that the Japanese, possessed as they are of a philosophy which prompts them to regard loss of face as a cardinal sin, will not consciously violate their agreement. If they do, the "loss" will be theirs, and Congress then may act with no loss of prestige to the United States.

Both In Accord

On one point, however, both Americans and Japanese are in accord. It is that the issue must be resolved.

Insofar as the Japanese are concerned, much of their over-all economy is firmly tied to textiles, more so even than is that of the United States. They must trade to survive, and cut off as they are from much of their pre-war markets—thanks to their inability to trade with Red China and to the soaring textile exports from India—the Japanese have a greater dependency upon America than ever before.

Although their new Premier Ishibashi has indicated he would like to see resumption of trade with Red China on a much higher level, the Japanese have a natural antipathy to communism and a traditional fear and distrust of Russia They want to hitch their future to the West.

As for the American industry, it seeks to move into the future with a greater confidence. It feels that if it knows exactly the amount of fabrics, yarns and made-up garments Japan will send in a given period it can gear its production accordingly. The U. S. industry points to its own loss of export markets as well as reduction in domestic consumption of domestically-produced textiles. It is also eager for the issue to be resolved.

Facets to the controversy are many. American mills, American workers, American economy must not be permitted to retrogress as a result of foreign competition. At the same time, those willing to face up to facts realize that the competition likely will increase on all fronts. The textile industry is basic to the economic life of any nation. Smaller countries of the world, seeking economic rehabilitation, have turned to textiles, just as India has done on a large scale in recent years.

The American industry wants the issue resolved so confidence in the industry will be restored. At the same time, foreign production is vital to free world stability. An economically weak "free" nation contributes, in direct proportion to its weakness, to the strength of communism. The opposite holds true for the strong.

Unit Level Organization of a Safety Program

By W. F. GARTH, Manager, Pacolet Mfg. Co., Gainesville, Ga.

This is the story, as told to the National Safety Conference, of a typical textile plant in the South and its organization for action against accidents at the unit level.

OUR parent company, Deering Milliken and Co., worked out an over-all insurance program a number of years ago with our present carrier. This program is one of close mutual assistance between the insurance carrier and those plants in our organization insured by it. The program itself was first approved on the very top level of management in each of the Deering Milliken Mills involved and a manual of procedures was issued along with a letter of explanation.

This letter contained an unusual statement which might be questioned by some, but which we feel is at least in part responsible for the good over-all results which have been obtained through a number of years. This statement is: "None of these procedures is mandatory except the report of accident data (or result) which will be filled out according to the definitions included."

In short, all we are *required* to do is to report the results according to a set of standard definitions—the standards

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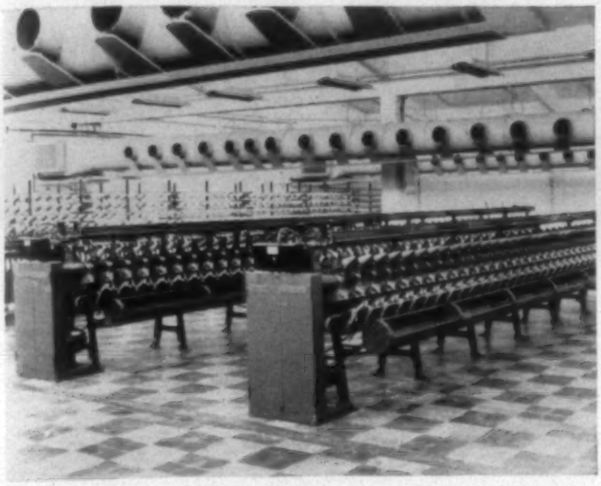
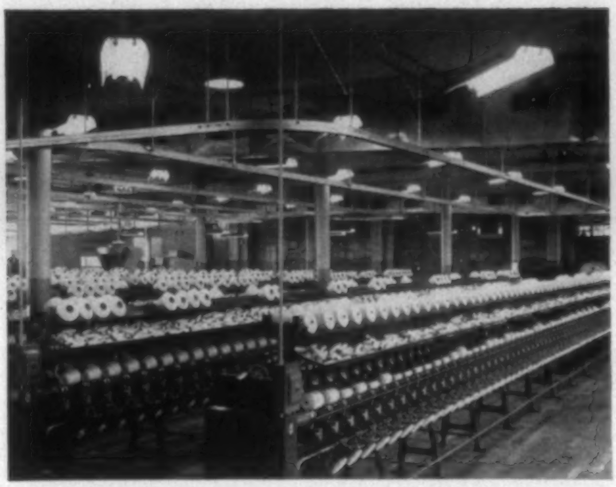

URUGUAY — Roto-Coners set up to wind onto paper cones. Machines are equipped with round bobbin boxes.


U. S. A. — Roto-Coners winding parallel tubes on one side, cones on the other.

GREAT BRITAIN — Roto-Coners winding open-wind knitting cones.

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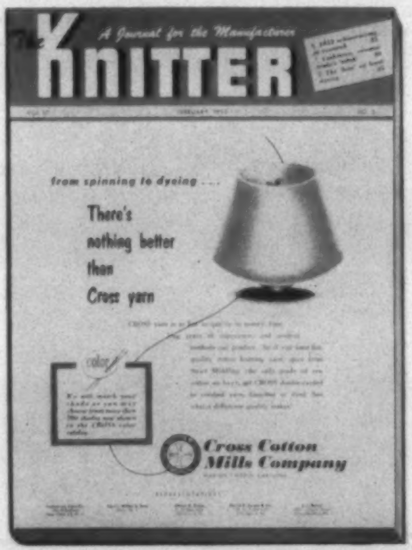
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are those defined by the American Standards Association applied to our own report.

The letter which came out to us went on to point out that the details of the manual were advisory and had been known as successful procedures within our own industry. Thus it was clearly apparent to most of us that to follow these procedures would be highly beneficial.

I would like to talk to you in more detail about these procedures to give you an idea of the organization for action at the unit level which we followed. It is important to keep in mind that the decision to follow these procedures was mine as plant manager and in following them step-by-step to maintain a safe mill or plant in which to work is our goal which should be achieved, based on long precedent in our particular industry.

The first step was to forcefully demonstrate management's interest in this program to local supervision and employees. This may be accomplished in many ways. In our particular case we have written letters to all supervisors stating our intent to run a safe plant. Interest in safety is also demonstrated by word of mouth constantly through all levels of our operation.

It was further necessary to demonstrate by personal attendance at meetings, both of employee groups and of supervisory groups, that our entire top management team was highly interested in safety.

Another item of management interest is the prompt disposition of recommendations presented by safety committees or a full explanation back to them as to why their recommendation could not be followed. The explanation had better be sound if it is to be effective. As all of you know it is not possible to carry out all recommendations immediately and channels must be set up to be sure that communication is clear and reasonable explaining why action has been delayed somewhat.

In addition to management interest in safety it is also necessary as a second step in a good safety program to appoint one person responsible for all safety activities in the plant. This person, of course, must be qualified to handle these safety activities and to give to these activities effective attention. He or she must be able to do the following:

(1) Establish monthly meetings of supervisors with a planned program to present including accident data, accident review, reporting of department inspections and the reading of written minutes.

(2) The establishment of definite procedures for investigation of all accidents requiring medical attention—originating on the shift on which it happened—routed through the overseer or department head back to his attention. After an accident is reviewed and commented upon and fully discussed it is then filed in the employee's permanent record.

(3) Definite written inspection reports must be established. These reports are to be made in each department before each monthly meeting. The inspection reports are reviewed by the overseer or department head before they are brought up in open discussion and hazards are corrected by the department head through shop orders. Certain major items that require management approval are taken up by the department head with his immediate supervisors.

(4) An adequate medical control program to insure proper treatment and proper medical records must be established. In our particular case we work closely with our

company nurse to see that she keeps adequate control of all of these medical records.

In addition to top management interest and creating a special job for one person to handle all safety activities, it is also highly important that a third item be covered fully. The plant management should explain to all of the supervisors in the plant just exactly what is expected of them in seeing that an active safety program is maintained. We expect our supervisors to be personally interested in safety and we constantly urge them to talk safety every day with each man. We expect all of the supervisors to take an active part in: safety committee work, both in the supervisors' meetings and in the department committee work; investigating and correcting improper procedures; inspection of departments; the establishment of safe operating procedures; in giving short talks and demonstrations to new employees especially; the distribution of appropriate literature; the showing of certain safety films; the presentation of individual awards for safe work.

The fourth procedure is continual education. This education may be handled not only by word of mouth but by the regular posting of attractive and effective posters, by film presentation and demonstrations and by bringing in good outside speakers to safety meetings.

In summary, the four highly important procedures for a good safety program in our plant appear to be, first, the demonstration of interest from the very top of management itself so that each level of supervision and employee feels its effect. Second, that a person responsible for all the safety activities in the plant must be designated and his program must continue to be inspired. Third, the plant management must spell out in specific measure what it expects of each level of supervision in taking an active part in the safety program, and fourth, education of safety must have wide distribution throughout the plant and must continue to be more effective.

With a program of this kind and with a genuine desire to see it work, the ground-work is laid for a safe operation.

ANNUAL COUNCIL MEETING

Welding Cotton Interests Together

RECOMMENDATIONS adopted by delegates of the National Cotton Council at the close of its 19th annual meeting in St. Louis, Mo., last month pledged an aggressive fight for markets overseas and stepped-up promotion at home.

They called for: (1) development of a plan for financing continuous market development abroad on a private basis, (2) a thorough study to provide information for developing a long-term program for cotton and cotton textiles, (3) continuation of the present cotton export program for the 1957-58 market year, and (4) reasonable limitations on cotton textile imports.

In advocating support of the present export program, the recommendation of the council's foreign trade committee pointed out the need for it to "dispose of the surplus U. S. cotton stocks and to re-establish and maintain traditional foreign markets for U. S. cotton and cotton products—it being recognized, however, that the present program has the long-range effect of weakening the cotton marketing system and impairing the functioning of the futures markets."

Supporting reasonable limitations on textile imports, another recommendation also asked that the council commend the U. S. and Japanese Governments for the action reflected in their recent announcement of a plan for limiting Japanese textile imports to the U. S. and urged all interested groups to support its successful implementation.

Production and marketing committee recommendations urged: the setting up of consumption goals at a 14-million-bale minimum; expanded research and education; that the Department of Agriculture finance the pink bollworm research work now financed by the states and the Oscar Johnston Cotton Foundation; continued search for a better bale package; complete covering of the heads of cotton bales; improvement in merchandising methods and techniques; a thorough study of the spinning quality of American upland cotton; evaluation of the practice of tandem lint cleaning at gins; studies of costs, returns and the economic effects of technological changes; opposition to substitution of cotton poundage quotas for marketing quotas based on acreage allotments.

The production and marketing committee also asked that the council, in order to meet the current domestic requirements, work toward release of such part of the stocks of extra long staple now in the strategic and critical materials stockpile as is consistent with our national security interests.

The committee on utilization research recommended that the council, working through a special research committee composed of representatives of each branch of the cotton industry and with the assistance of competent technical personnel, continue its efforts to develop an adequate long-range research program for cotton in keeping with the industry's basic dependence on research for solution of its problems.

George G. Chance, Bryan, Texas, cotton producer who has been active in the council since its inception, was named its sixth president. Mr. Chance was a member of the committee of organization of the council, and except for one year has served continuously on the board of directors since 1941. He also assisted in the formation of the council's Texas State Unit. He has been chairman of that group since 1941.

In his annual address, Col. F. J. Beatty, outgoing council president from Charlotte, N. C., told delegates that tripling of U. S. cotton exports from one season to the next is the biggest news of the past year. "We now are hearing the common prediction that exports this season will be close to seven million bales—which would be the highest figure we have reached in almost a quarter-century. For the first time in six years, our domestic consumption and exports are exceeding production," Colonel Beatty said.

Colonel Beatty explained this development was significant because: (1) It is moving a large volume of cotton, thus taking a good bite out of the surplus. This has put the industry on the road toward an expansion in production volume. Such an expansion is badly needed not only to improve current net income but also to make possible the efficiency needed to lower production costs. (2) It demonstrated the tremendous breadth of opportunity for market expansion through united and realistic industry action.

In his economic outlook following Colonel Beatty's address, Dr. M. K. Horne Jr., council chief economist, said it is not a far-fetched dream but a genuine possibility that in five years' time the normal domestic market for cotton could be up to 11 million bales and exports to nine million, with a total of 20 million bales and pointed upwards.

Addressing delegates at the opening session of the council's 19th annual meeting, he warned, on the other hand, that the market will trend downward if it is allowed to drift along without aggressive research and promotion.

Describing the current cotton situation, he said consumption of U. S. cotton this season is expected to total 15.5 million bales—possibly more. This would be four million more than last season and the largest total off-take in 30 years. This year, for the first time since 1950-51, the off-take is exceeding production, and the carry-over is expected to decline by perhaps 2.5 million bales.

Relative confidence in the future course of prices, which causes customers to build stocks up rather than work them down, was cited as the main cause of a dramatic increase in exports from 2.1 million bales last year to an estimated 6.5 million in the current season.

He explained that export prices once again are well in line with those of foreign growths, (2) the foreign price of cotton is now substantially lower in comparison with rayon, and (3) the big drop in the foreign price of U. S. cotton—which was anticipated earlier and which made foreign buyers afraid to hold stocks—has actually occurred and today there is a strong desire in consumer countries to build stocks back up to better levels.

The export market he described as particularly explosive, noting that for the second straight year the spread between foreign consumption and production is rising.

"If foreign consumption should expand ten per cent while production held constant, our export market would tend to rise by 60 per cent. For the two latest seasons foreign consumption is showing an average annual increase of about three per cent, or 900,000 bales, while production has increased less than one per cent per year. If these trends should continue for the next five years, our exports would be nearly nine million bales, plus or minus the inventory shifts; and the whole outlook of this industry would be radically changed. At the same time, if the trends in these two big magnitudes (consumption and production) should turn moderately against us, we still could be virtually out of the export market in that period of time."

He cited estimates that domestic consumption for the present season will total nine million bales, about 200,000 less than last season. Imports of textiles provide one significant reason why domestic consumption is not increasing

NATIONAL COTTON COUNCIL BOARD OF DIRECTORS FOR 1957—This picture of the council's new board of directors was taken following its session at the close of the annual meeting in St. Louis, Jan. 29. *Front row, left to right:* William Rhea Blake, Memphis, executive vice-president and secretary; Col. F. J. Beatty, Charlotte, N. C., chairman; Mrs. F. M. Boswell, Memphis, secretary to the board; B. L. Anderson, Fort Worth, vice-president; George G. Chance, Bryan, Tex., president; Aubrey L. Lockett, Vernon, Tex., treasurer; L. T. Barringer, Memphis, vice-president.

Second row: Boswell Stevens, Macon, Miss.; W. T. Wynn, Greenville, Miss., advisor to the board; J. F. McLaurin, Bennettsville, S. C.; Chas. C. Hertwig, Macon, Ga.; L. M. Upchurch, Raeford, N. C.; A. K, Winget, Albemarle, N. C.; W. B. Coberly Jr., Los Angeles, Calif.; Alfred Bessell Jr., Houston; Rufus Mock, Greenville, Miss.; James S. Francis, Phoenix.

Third row: Robert Patterson, Trenton, Tenn.; J. D. Hays, Huntsville, Ala.; Harry S. Baker, Fresno, Calif.; Ralph R. Norman, Fort Deposit, Ala.; Otis Howe, Wabash, Ark.; W. J. Estes Jr., Haralson, Ga.; George M. Powell, Memphis; Cecil Collerette, Casa Grande, Ariz., chairman of the council's production and marketing committee and ex-officio member of the board; Harold A. Young, North Little Rock, Ark., advisor to the board; A. L. Durand, Hobart, Okla., advisor to the board.

Not shown in the picture are H. L. Wingate, Macon, Ga., vice-president; and Lamar Fleming Jr., Houston, advisor to the board. Other board members not shown are A. B. Emmert, Danville, Va.; A. E. Hohenberg, Memphis; Delmar Roberts, Anthony, N. M.; Adolph Weil Jr., Montgomery, Ala.; J. Craig Smith, Sylacauga, Ala.; C. D. Tuller, Atlanta; A. L. Story, Charleston, Mo.; Robert R. Coker, Hartsville, S. C., advisor to the board; J. L. Hurschler, Pasadena, Calif.; F. E. Grier, Greenwood, S. C.; Burris C. Jackson, Hillsboro, Tex.; and A. J. Mills, Stamford, Tex.

this year, he said. Their main effect, he pointed out, has been the demoralization and uncertainty caused the U. S. textile industry regarding the future of all its markets.

The U. S. cotton industry is mounting an all-out effort to eliminate "needless quality damage" that has been hurting the reputation and competitive position of its raw fiber. A description of this far-reaching effort to "preserve cotton's quality" came in a report from the production and marketing division of the National Cotton Council.

J. Ritchie Smith, in making the report, said one of the industry's most urgent needs is a better bale package to protect cotton against contamination while it is in storage or in transit to mills. He said the traditional, loose-mesh jute bagging, which doesn't cover the bale completely, permits damage from tar, grease, oil, dirt and other contaminants.

For the past three years, he pointed out, the council has conducted a systematic search for an improved bale wrapper. Many thousands of bales have been test-wrapped in such new materials as plastic films, non-woven fabrics, various kinds of paper, and burlap with a plastic film liner. "Though we haven't yet found a completely satisfactory wrapper, we have some promising leads," he said, "and the industry may soon be in a position to make some major decisions about packaging improvement."

Top textile executives will be asked to guide and direct the first market research textile conference, to be held in Washington, D. C., May 28-29. Frank McCord, market research director of the National Cotton Council, in answer to questions about the forthcoming meeting, said, "We hope to have a high representation of top textile executives because we need their help, knowledge and thinking in making the conference a success."

He said that while details of the conference program had not yet been set, plans call for an agenda which will show: (1) that the potential for expanding textile consumption exists, (2) that available market research techniques and methods can be employed to expand textile usage, and (3) that the real challenge for the U. S. textile industry is to find ways and means of utilizing these techniques and methods most effectively.

"All those familiar with the textile situation today realize that the share of the consumer dollar spent for textiles has been declining in recent years so that the textile market as a whole is not in a growing, healthy condition. That's why there is an urgent need to explore all possibilities for developing bigger textile markets," Mr. McCord said.

He went on to point out that the whole textile industry has now become aware of these facts and that the trade is anxious to make a concerted effort to expand the volume of textile consumption. The widespread interest in the conference reveals that stepped up market research efforts rate top priority, Mr. McCord said.

Consumer interest in "wash-and-wear" cottons is still keen, Dr. Leonard Smith, director of the National Cotton Council's utilization research division, reported. Reviewing highlights in chemical finishing of cotton fabric during 1956, Dr. Smith said that housewives can now look forward to the day not so far distant when permanent shape-holding finishes can be applied to garments by dry cleaners, and eventually in the home.

Progress in other finishes includes waterproof cottons that "breathe" and are water-resistant at the same time. This

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will allow wearers of raincoats to stay dry in "air-cooled comfort."

Improved durability of canvas awnings and other outdoor fabrics in all sorts of weather is another heartening result of long research. The technologist discussed a three-year project aimed at increasing cotton's resistance to destructive action of sunlight, mildew and smog. This work is expected to help hold and expand large markets for cotton canvas involving hundreds of thousands of bales of cotton.

An electronic "brain" speeded up calculations on one phase of cotton fabric research by 20 years during 1956. More than two miles of cotton fabric, a research team of five men—plus the "brain"—succeeded in determining just how cotton fabric reacts when made wrinkle resistant by each of the four major resins in common use.

This sort of research enabled textile technologists to learn also which chemicals contribute most to such properties as tear strength, wrinkle resistance and durability. The four resins tested—which, by the way, have been responsible for the wrinkle-resistant treatment of billions of yards of fabric—are urea formaldehyde, melamine formaldehyde, modified melamine and modified urea. For the first time these have been thoroughly compared in 216 variations of formulation.

According to Dr. Smith, results of the tests conducted by the American Cyanamid Co. showed that the highest initial wrinkle resistance is added to cotton by ethylene urea, and the least by urea formaldehyde.

Growers of extra long staple Supima cotton are going all out this year to meet the burgeoning demand for their premium fiber. "We are making every effort to maintain maximum production and stabilized prices," Mitchell F. Landers, executive vice-president of the Supima Association of America, said.

A worldwide run on dwindling stocks of Supima has posed new problems for growers. Just two years ago their fiber was little known and they were fighting for markets. Today, as a result of aggressive promotion and economic forces, their problem is to meet the demand.

Supima is enjoying phenomenal success in high fashion, Mr. Landers said. Sixteen textile manufacturers are busy weaving Supima into cotton satin, chiffon, crepe, voile, broadcloth and other fine fabrics. Supima, trademarked name for the new Pima S-1 variety grown in the Southwest, averages an extra long 1 7/16 inches in staple length. Handpicked, roller ginned and hailed as "the world's finest fiber," it has exceptional strength, luster and fineness.

Course In Textiles And Testing Techniques

The United States Testing Co. announces registration has begun for the 20th annual "Refresher Course in Textiles and Testing Techniques" which will be conducted during the second half of the Teachers College Summer Session, Columbia University, July 29 to August 16. This course will be held in the company's main laboratories in Hoboken, N. J. The three-week course is open to representatives in the fields of home economics, education, retailing and others who have had some elementary textile training. Through lectures, demonstrations and elective practice sessions, students will cover all phases of analyses on textiles and related merchandise, identification of fibers, chemistry, detergency and research.

Opening, Picking, Carding & Spinning

Werthan's Results with SG-1 Spinning Frames

We asked Frank M. Paget, superintendent of Werthan Bag Co. at Nashville, Tenn., about his talked-about spinning room. His answers to a number of pointed questions are interpreted here by a capable technologist.

"IF you want to see a real spinning room, see Werthan Bag," is a statement repeated whenever mill people get together. Sensing a story of real interest and value behind these remarks, TEXTILE BULLETIN conducted a by-mail interview with Frank M. Paget, general superintendent. Mr. Paget answered all of our specific questions, adding "I could write a pamphlet on each subject and still not fully give all of the answers." Nevertheless, the data given us by Mr. Paget contains a wealth of ideas and suggestions that can be adopted and adapted to advantage in any spinning room.

Before plunging into the how and why of Werthan Bag's extremely successful operation at Nashville, Tenn., we would like to digress momentarily for a brief outline of the growth and development of the company.

The Werthan Bag and Burlap Co., founded by Morris Werthan and his father, Meier, over 60 years ago, was the parent of the present company. For the first few years father and son were engaged in the selling of reconditioned burlap bags. A few years later a younger brother, Joe Werthan, joined the enterprise. Morris Werthan then moved to St. Louis to set up another office for business, which continued to grow and prosper.

In 1913 the company turned from the sale of reconditioned burlap bags and began the manufacture of both cotton and burlap bags. Necessary equipment such as cutting machines, printing presses and sewing machines were purchased and placed in operation. The initial venture proved profitable and promising. It prompted the purchase of a similar unit in Nashville a few years later.

The time and the place were ideally suited for assured success of the new company. Nashville at that time was fast becoming the largest center in the world for flour-blending and was one of the few cities having the advantage of grain transit privileges. All of these industries depended upon having an ample supply of textile bags. Nashville proved to be the correct location, and in 1922 all facilities were consolidated there.

By this time the Werthan Bag and Burlap Co. had become the Werthan Bag Co. and had gained recognition as a prominent manufacturer of textile bags. In 1928 the company merged with the Morgan and Hamilton Co. of Nashville, which had been engaged in the manufacture of bags and, most important, owned and operated a cotton mill, bleachery and finishing plant. This acquisition solved the problems that the original Werthan operation was experiencing in obtaining sufficient cotton fabric of the particular qualities and finishes demanded by its customers. A more far reaching consequence is that it placed the company in the cotton spinning and weaving business.

The final expansion of mechanical operations was initiated just prior to World War II, by the addition of a dye plant and a printing plant. This move was timed to coincide with a highly successful campaign to sell more commodities in textile bags by the simple expedient of making the bags reusable for housewives. The floursack came into its own as a dress material, being printed with bright, highly decorative designs so that the empty bag could be washed and then converted by the housewife into dresses and a wide variety of household articles.

This new styling, coupled with the tremendous demand for all products during the war, placed Werthan Bag in position as one of the biggest manufacturers of textile bags in the country. Today Werthan Bag is also a large supplier of print cloths, shirtings and broadcloths to the trade, for manufacture into dresses and other apparel.

Now, let's trace briefly the changes in the machinery in the spinning mill and review the present equipment which is operated so effectively. The foundation of the spinning

Frank M. Paget, shown here in the spinning room, has played a major role in attaining the spinning record at Werthan Bag. It is Mr. Paget who has so kindly given us all the data and helpful pointers in this article.

operation was the old Wariota Cotton Mill. This mill was started in 1882 and some of the original machines were still being used at the time of the complete modernization which took place only a few years ago. Additional frames have been installed at various times so that there was a total of about 48,000 spindles, composed of a wide variety of models of different ages, manufacture and specifications. The spinning was all short traverse, small ring sizes and a number of gauges. Three processes of drawing were used. Depending upon the counts to be spun, the roving was either of two or three processes.

In the early 1950s a complete modernization—it would be more apt to call it a complete transformation—of the entire spinning and weaving mill was conceived and executed. This unit is now housed in a modern three-story brick building fully furnished with a central station air conditioning system, refrigeration and fluorescent lighting. The 925 looms are supplied by 33,360 spinning spindles and complementary preparatory machines. All yarn is spun on Gwaltney spinning frames, with the filling being rewound.

Equipment of the opening room consists of eight F-7 feeders, vertical openers and No. 12 horizontal lattice openers. The opened stock is delivered to six one-process pickers of the latest steel type with blending reserves and pneumatic rack controls. A total of 159 revolving flat cards, 40 inches wide, are sufficient for the two blends that are later split up to make the approximate 20 different counts normally used. The cards are all fitted for the Abington stripper system, while some also have Saco-Lowell continuous strippers. All cards have 14-inch coilers.

Eight lap winders, 16 ends up, with pneumatic rack controls, spool moistening devices and four-inch pintles, prepare the stock for the lap-back drawing. This consists of 144 deliveries of Model DS-2 Saco-Lowell drawing. The drawing, like the cards, is equipped with 14-inch cans.

Fifteen roving frames balance out the drawing and spinning, to produce the only two weights of single-process roving used in the mill. The frames are 12 x 6, J-3 drafting system, with 68 spindles to the frame, and operate at a spindle speed of 650 r.p.m. Indicative of the careful planning intended to promote ultimate high efficiency, all counts can be made from the two weights of roving; 1.25 hank roving is used for yarn counts ranging from 30s to 36s, and .75 hank roving is suitable for the coarser counts. The large frame size results in packages weighing from 44 to 46 ounces, lasting longer in the spinning creel and increasing the potential efficiency in the spinning room.

Cleanliness, systematic inspection and preventative maintenance is the keynote of the card room. Low-grade stocks are processed on cards equipped with continuous strippers. Waste is processed on cards with metallic clothing. All cards are connected to the Abington stripper system. Most important, according to Mr. Paget, low production carding is essential for high quality yarn spun at high spindle speeds.

The spinning room is the heart of the mill, and the special pride of General Superintendent Paget. This is one of the largest installations of Saco-Lowell Gwaltney spinning frames operated as a single unit, four-inch gauge, 240 spindles each, total 33,360 spindles of modern efficient spinning. The frames are equipped with overhead cleaners, Pneumafil, New Era spindles with wooden bobbins, and are individually motor driven.

The standard SG-1 drafting system is used, based on the Shaw principle of long draft fiber control. The average number of ends down, on all counts and both blends, ranges from 20 to 25 per thousand spindle hours.

Now, to the specific questions asked by TEXTILE BULLETIN and the answers given by Mr. Paget. The answers are not in the form of direct quotes from Mr. Paget, but are the essence of his replies.

Question: To what factors are your unusually high traveler speeds attributed?

Here are the figures on spindle speeds and traveler speeds for the majority of yarn counts:

Warp: 16s/1 through 26s/1
3″ ring
9,600 spindle speed in r.p.m.
7,500 traveler speed in f.p.m.
4.60 Twist Multiplier
Warp: 30s/1
2¾″ and 3″ ring
9,600 spindle speed in r.p.m.
7,500 traveler speed in f.p.m. (3″ ring); 6,900 traveler speed in f.p.m. (2¾″ ring)
4.60 Twist Multiplier

Coarser counts and waste yarns are run at comparatively slower speeds.

Filling: 20s through 30s
3″ ring
8,600 spindle speed in r.p.m.
6,600 traveler speed in f.p.m.
3.75 Twist Multiplier
Filling: 36s/1 and 41s/1
2½″ ring
9,600 spindle speed in r.p.m.
6,250 traveler speed in f.p.m.
3.75 Twist Multiplier

As on warp, coarser counts and waste yarns are run at comparatively slower speeds.

The high spindle speeds are basically due to the principles and design back of the Gwaltney spinning frame. This frame, with its traverse of over 11 inches, incorporates a new high in balloon control. The yarn control thus gained results in a low yarn tension which is maintained within close limits throughout the building of the bobbin and at all positions of the ring rail.

The minimum variation in yarn tension permits the use of the longer traverse, building bobbins longer than heretofore possible on a cotton-type spinning frame. Traveler weights may be selected with greater accuracy to suit the yarn size because of the more uniform conditions of tension at all points in building the bobbin. The reduction in

Mr. Paget cautions that high-speed spinning can be obtained only with good yarn made from good cotton. At Werthan Bag the stock is thoroughly opened, for good cleaning, but is not subjected to excessive beating or harsh treatment. Laps are continuously checked for weight, length and uniformity.

traveler tension and the decrease in tension variation permits the substantially higher traveler speeds and also increases traveler life.

Mr. Paget stresses the fact that the Gwaltney spinning frame is credited as being the machine allowing him the potentials of efficiency and high production that can be gained. He goes on further to add, and most emphatically, that other factors are involved and must be observed. The proper rings must be used. Highly necessary, rings have to be broken in correctly. The design of the traveler must be suited to the work being performed. Rings will be discussed later in this article, and in detail.

Constant temperature and humidity control are essential for the high spindle and traveler speeds. The spinning room at Werthan Bag is completely air conditioned with refrigerating facilities. Air conditioning and refrigeration is vital because this allows control of the humidity in the room. Humidity control is necessary in spinning at the higher speeds. The closer control permits approaching the limits in speeds above which difficulties would appear in the form of ends down. Machine settings do not have to be changed constantly to overcome air conditions.

"Good Cotton"

Good cotton is the next point on Mr. Paget's list of major reasons why Werthan Bag is reaching such unusually high traveler speeds. The cotton is carefully selected for grade, staple length and character. Staple length and a minimum percentage of weak immature fibers constitute uppermost check points when the stock is bought.

Never allow a frame to stand more than 15 minutes before doffing. There is more to this statement than the mere loss of production through machine idleness. The real reason is that the overhead cleaners will continue to blow over the frame. The air currents from the cleaner will blow fly and lint onto the ends to cause end breakage. Also, the strands of roving and yarn will become blown and disarranged. Fly will collect on the frame and then will be caught by the traveler to cause ends down when the frame is started up. Incidentally, overhead cleaners should never be stopped where they will blow onto one section of a frame, without expecting a number of ends to come down.

Handling of the stock as it is processed composes the second half of Mr. Paget's stressing of "good cotton." The stock must be carefully blended by drawing upon enough bales of cotton, at all times, that the fibers within the picker lap will be of a homogeneous character. The variation in staple length and fiber characteristics will thus be held to such low ranges that it is not necessary to make adjustments in roll settings or speeds to suit a particular mix of cotton being processed. In addition, the opening equipment and pickers are selected and operated to effectively clean the stock without the excessive beating and harsh treatment which would injure and weaken the individual fibers. The minimum of opening machines are used in order to prevent passing the stock through too many beaters. Beater speeds, both in the opening line and in the pickers, are kept low to reduce the number of beats per inch and still obtain the cleaning required.

Next, the card room must be kept in top condition. Good yarn, and particularly yarn that can be spun at high speeds, must be smooth and even. Excessive variation will cause ends down when either the weak spots or thick slubs reach the traveler. This condition can be prevented only by careful supervision and continuous corrective maintenance in the preparatory processes. Cards, drawing and roving must be properly adjusted, and in perfect mechanical condition to assure creeling in roving that is of the highest quality.

Cleanliness Paramount

Cleanliness is the final point listed by Mr. Paget as being responsible for reaching the ultimate in spinning—cleanliness of both machines and floors. Periodic cleaning is a part of every work load in each room. Cleaning prevents waste from getting into the work and causing slubs. Cleaning prevents fly and lint from becoming impacted into bearings and other working parts of the machines, where it would cause binding, incorrect adjustments and other similar conditions that would impair the otherwise precision operation of the machinery.

Every week-end every card is carefully cleaned from one end to the other. The coiler bonnets are raised and cleaned with compressed air. All exposed parts are cleaned with air hoses, brushes and cloth. Belts and bands are inspected and replaced when worn.

The lap winders and draw frames are completely in-

A partial reason for the high efficiency at Werthan Bag is the straight-line flow of stock through the mill. Here is shown the lap back drawing, located so that the cans are moved a minimum distance back of the roving.

spected and cleaned each shift. The lap winders are gone over thoroughly, both inside and out, once every eight hours. The operator of the roving does all of the creeling, can-dumping and doffing. Every roving frame is completely cleaned once a day.

The spinners clean the roller beam and spindle rails. They also keep the rolls clean. In addition, there is a roll picker on the first shift who works with an air-driven roll picker. Her job is the cleaning of the top rolls, suspension arms, roll necks and other parts of the drafting system. This operator averages about four to five frames per hour, so that the rolls are cleaned approximately once every 36 hours. There is also an operator on the first shift who uses a special machine, built at the mill, to clean the revolving clearers.

Breaking in Rings

Question: How do you break in new rings? Do you use a special traveler, or do you find that ordinary travelers serve the purpose?

Mr. Paget could probably start a good argument with his opening statement. He believes that one of the reasons for the high spindle speeds that he is so successfully enjoying is due to the fact that No. 1 flange rings are being used. To quote directly, "Use No. 1 flange ring on all counts, and believe it should be narrower." The reasons for this statement lie in the fact that more width can be had in a narrow flange traveler; that is, a traveler for a narrow ring, than for a traveler of the same weight but for a wider flange. The weight of the traveler for a narrow ring flange is obtained in width rather than in length. Thus, a traveler will be wider for a No. 1 flange ring than would be a traveler of the same physical weight for a No. 1 flange ring. Naturally, the weight of the traveler must be suited to the tension requirements of the balloon and the yarn count. Even though the traveler weight is limited, the means taken to obtain this weight is not. The wider traveler, for the No. 1 flange ring, is preferred because it is much less liable to become loaded. Also, it is felt that the traveler for the No. 1 flange will have a lower center of gravity and will balance better than will a longer, more narrow design. All of this applies both to the question regarding travelers and also to the first question we asked about the reasons for his ability to attain such high spindle speeds.

The roving frames average about 84 per cent efficiency. Single process roving on 12 x 6 frames, with only two sizes of roving and 14-inch cans in the creel, contributes to maximum efficiency.

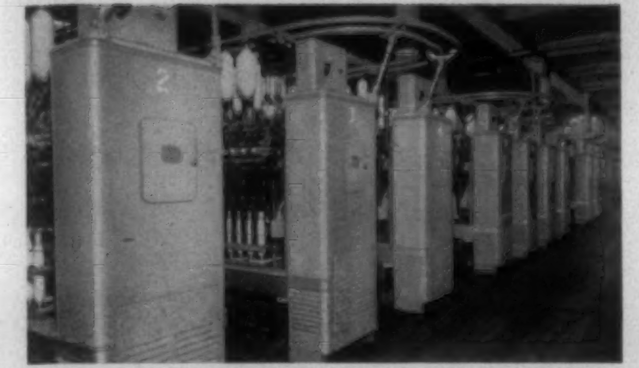
Mr. Paget stresses the importance of ring and traveler fit. Even more strongly does he reiterate the importance of ring care. The rings are started at the maximum speed that is intended to run on the stock in process. The rings are also started up with the same traveler that will be used when the rings are completely broken in. In other words, at Werthan Bag the new rings are started up at full speed with the traveler that will ultimately be used. This seems on the surface to be harsh treatment when compared to the general recommendation to reduce spindle speeds 20 to 25 per cent for the first 140 to 180 hours of operation. Actually, Mr. Paget is operating on the basis of very sound thinking.

In the initial phases of the life of the ring the traveler is burnishing the ring to produce a smooth surface that cannot be duplicated in any other way. The metal of the traveler rubbing the entire radius of the flange removes the fine polishing lines caused by the polishing abrasives used in the manufacture of the ring. Even the finest of polishing emery will leave minute lines which, when observed under high magnification, resemble a saw-tooth surface. These serrations must be removed or worn down by the action of the traveler. During the first few weeks of the ring's use, the sharp edges of the serrations are being removed.

Should the weight, circle or type of traveler be changed during this period, it would present a slightly new bearing surface on the ring. This would require making a new track, and therefore would retard the final burnishing effort and lengthen the time element, as it would either raise or lower the bearing out of balance. Also, if the yarn numbers to be spun or the spindle speed is changed during this time, the floating position of the traveler will also change. In fact, any change that affects the flow of yarn to the bobbin changes the floating position of the traveler, and this in turn presents a new bearing surface. When this occurs there is an influence to modify the position of the traveler, and there is either an increase or decrease in the amount of friction created between the traveler and the ring, which in turn develops a new floating position for the traveler.

At Werthan Bag all rings are broken in by a specially trained crew of spinners who can be trusted to obey all regulations scrupulously and to observe the meticulous care demanded for the proper handling of this job. The head of the breaking-in crew keeps a record of all traveler changes, filling in special report forms. All travelers are inspected by the head of the crew as they are taken off the frames. The used travelers are saved when they are taken off the frames, placed in an envelope indicating the yarn count, frame number, type of traveler and length of time run. These travelers are then examined under magnification by either Mr. Paget or one of the operating supervisors. Each and every traveler removed by the special breaking-in crew is carefully examined by responsible members of the mill management group.

The actual procedure of breaking in rings commences with wiping new rings with soft bleached rags. All the lubricant that can be wiped off by a clean rag is removed, but the rings are never washed to complete the removal of the protective oil film. Wiping rags are changed frequently to assure wiping with a clean surface that cannot contain any gritty dirt which could damage the surface of the new



Saco-Lowell SG-1 spinning frames in these two views are credited with being primarily responsible for the high efficiencies and unusual spindle speeds which have made Werthan Bag outstanding.

ring. The rings are then started up, at full speed and with the proper traveler, and run for 15 minutes. The traveler is then removed and carefully examined. The inside of the ring is again wiped *perfectly clean,* with a clean soft rag, before new travelers are put on. Mr. Paget underlines and insists that cleaning of the ring surface at this time is the most important step of the whole breaking-in procedure.

This cycle is then repeated three more times, so that there is a total of four runs of 15-minute operation. Each time the traveler is changed and the rings are carefully wiped off on the inside surface. Each time the travelers are examined by a supervisor, using a magnifying glass. It will take about five hours to finish the first hour of actual ring operation.

The next stage, says Mr. Paget, is to run travelers for an hour before making the change. This is repeated every hour for the next 24 hours. Each ring should be wiped with a clean soft cloth at every traveler change until no black can be removed from the ring. The black is a sediment made up of traveler dust mixed with the film of lubricant that was allowed to stay on the ring when first installed. This sediment acts as a cutting compound and must be removed. If allowed to stay on the ring it will finally lead the rings to such an extent that it will be impossible to bring the spindle up to speed without the traveler burning. Mr. Paget relates that he found this to be a proven fact when starting up the first 22 Gwaltney frames, for the rings had to be returned to the maker and repolished.

After the above initial runs have been made, intervals between traveler changes increase according to the following running schedule, until the full traveler life is attained:

2 hours traveler time for 24 hours of operation
then
4 " " " " 24 " " "
then
8 " " " " 24 " " "
then
16 " " " " 32 " " "
then
24 " " " " 48 " " "
then
40 " " " " 120 " " "

After reaching 48 hours of traveler operation, traveler use is increased in increments of eight hours until the full 120-hour traveler life is acquired.

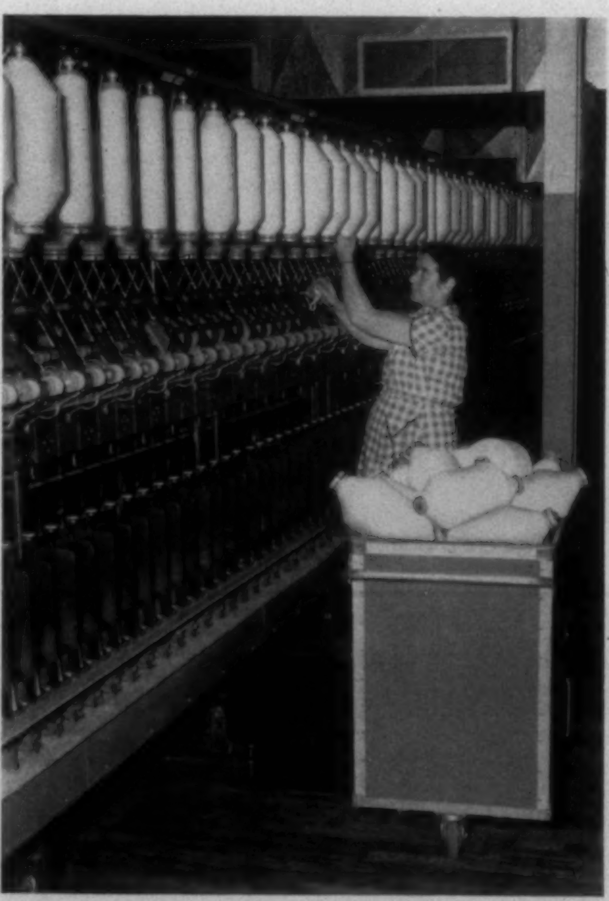
If any frame shows an unusual number of travelers burning, the head of the special breaking-in crew starts flagging the spindles having the burning. At the same time, the changing cycle is temporarily held at the point at which the burning becomes apparent. If burning continues to develop on the same rings, the inside of the rings are brushed with a very light coating of cocoanut oil and sulphur. The traveler is also changed to about a two number heavier weight and run for several hours. This will usually polish off whatever is causing the individual rings to burn the travelers.

Mr. Paget, in direct response to the question posed, states that a special traveler is absolutely necessary. The selection of the traveler is a question and a problem that can only be solved by co-operation between the mill and a competent sales serviceman from a traveler manufacturer.

Question: About what is your spinning efficiency, allowing for all stops? How, generally, do you reach high efficiency?

Werthan Bag produces an average of 24 different counts ranging from 6.75s to 41s, doing this on three sizes of rings and four different bobbins. All roving is single. Ring sizes are three, 2¾ and 2½ inches. A total of 33,360 SG-1 spindles are in operation. A total of 14 doffers are used on the three shifts, with four regular doffers per shift and two floaters who are used on any shift.

Under these organizational conditions the mill operates at a consistent 96 per cent efficiency. There is absolutely no allowance for any stoppage. Furthermore, this efficiency is



Creeling is closely supervised and planned for a minimum of waste. The roving box, shown here, designed by Mr. Paget, saves time because the empty bobbins are placed in a hinged compartment and can be quickly emptied by a single dumping movement.

calculated on the entire 33,360 spindles and one frame is always stopped for overhauling while another frame is always stopped on the first shift while travelers are changed. Discounting these two frames, the mill is actually running at 97.5 per cent efficiency, for the two planned stoppages amount to 1½ per cent of the efficiency figure.

One of the major factors for the high efficiency is by a carefully controlled system of doffing. The doffing problem is complex because of the large number of counts being run at one time. A careful study has been made of the doffing cycle set up by the rate of production on each count of yarn. The cycle varies in time length for each count because of the twist, front roll speed, bobbin diameter and ring used as most suited to the count. This data is correlated so as to set up a doffing schedule based on predetermining the exact time at which a specific frame will be ready for doffing. A special operator calculates the sequence and time for each frame and notifies the doffers of the exact schedule to be followed. As the number of frames per count varies most of the time, the schedule is continuously varying from one day to the next.

The other reasons for the high efficiencies are related to the same qualities outlined under the first question. They include basic conditions as good stock, even yarn and machinery clean and in good condition. Good housekeeping of all rooms is also necessary. Mr. Paget did not include excellent supervision, but this is one of the prime reasons why the mill has been so successful in its operation. More of this will be discussed later.

Question: To be on so many counts in your spinning room, your ends-down seem low. What preparation or procedure do you follow in attaining this?

Mr. Paget again refers us to the pointers outlined under the first question. In addition, he cautions against the use of excessive drafts. The use of too high drafts is conducive to a higher rate of end-down both because of higher roll speeds and the possibility of drawing to thin, weak places in the yarn.

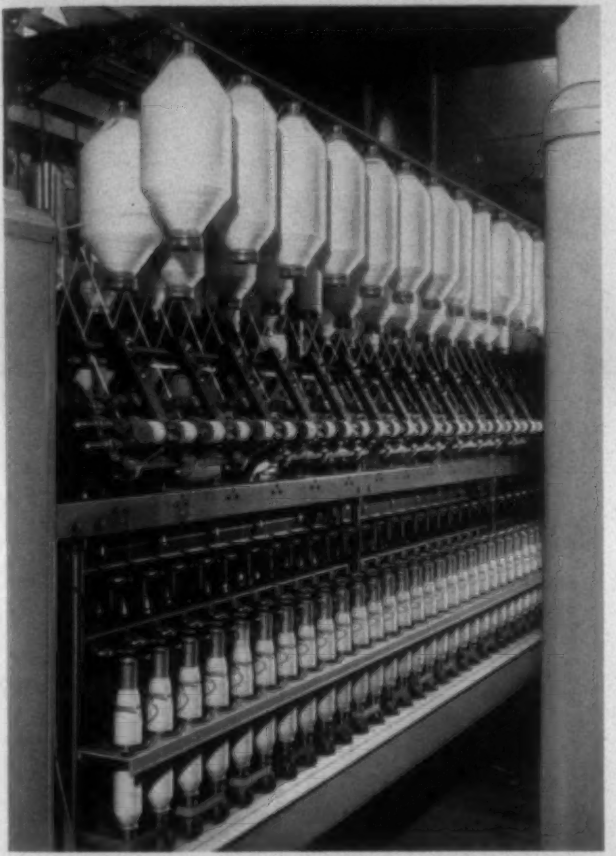
Cotton mixes must be carefully watched and blends arranged to maintain a homogeneous mixture. Changes in the character, staple length or inherent strength of the fibers are precluded by careful blending. Such abrupt changes, caused by insufficient blending, could cause a significant increase in ends-down. This was outlined under the first question.

Low card production was cited as being another pointer toward being more able to attain high traveler speeds and high efficiencies, with a necessary low number of ends-down. Mr. Paget does not believe that high speed carding will prepare the fibers sufficiently for the production of an even card sliver. This is particularly so under his machinery set-up with its minimum number of doublings.

Proper care of top rolls on the spinning is stated to be another necessary check point required to keep the number of ends-down. Specifically, buffing of the rolls is very important. The top rolls should be buffed whenever any wear is apparent. Mainly, however, concentricity of the buffed roll and the absence of any taper from one of the rolls to the other are the points to watch. Rolls having more than .003 inch eccentricity will begin to have an undesirable effect upon spinning performance. Tapered rolls, caused by poor adjustment of the buffing attachment, will prevent maintaining an even pressure on the strand of fibers as they are traversed from one side of the cot to the other. Mr. Paget also favors using a relatively soft cot covering when spinning cotton in his range of counts.

Again, Mr. Paget underlines "cleanliness and more cleanliness." Every phase of spinning and its preparation must be based on cleanliness of machinery and cleanliness of the mill building. Floating fly can be drawn into the balloon

A bird's eye view of the Werthan Bag Corp. The large building in the foreground is the cloth manufacturing plant. The dyeing and finishing plant is in the rear of the spinning mill. The construction of paper bag units is carried out in the buildings to the left. —*Photographs courtesy Saco-Lowell Shops.*



The Gwaltney frame shown here is one of Mr. Paget's "guinea pigs." The frame, spinning 20s yarn from .75 roving, has half the separators removed and the 1½-inch wooden bobbin replaced by one of aluminum with a 1¼-inch barrel. Mr. Paget is continually experimenting with single frames in an attempt to improve the very high efficiencies now obtained.

to cause an end-down. Clearer waste, fly from the frame, can be drawn into the roving to plug the traveler and break down the end. High speeds with low ends-down are based on keeping the mill clean at all times. It is false economy not to spend the necessary time and money to keep it so.

Question: Our understanding is that your present traveler speed is over 6,000 feet per minute. Do you think you can run a high speed satisfactorily, and if so, what preparation will you make?

We are quoting Mr. Paget's reply: "If you call 7,500 feet per minute traveler speed high, then I am running high speeds very satisfactorily. Incidentally, I have one frame on warp which I affectionately call 'Guinea Pig.' It is on this frame that all speeds have been first attained and proven before any other frames were changed. After going to 9,600 r.p.m., I speeded this frame to 10,000 r.p.m. With this speed and a three-inch ring a traveler speed of 7,800 plus was obtained. After quite a bit of experimenting, this frame was made to run beautifully at this speed, with travelers running 120 hours the same as the slower frames, also the yarn looked better and had a higher break than the regular run. The ends-down ran from about 14 per thousand spindle hours, when the travelers were first changed, to about 30 per thousand just before traveler change time.

"I ran this frame for six months at this speed and then replaced the rings so that the first set could be returned to the manufacturer for analysis. These new rings I started in at 10,000 r.p.m. with the same type of traveler. The frame is now up to 48 hours between traveler changes, and is running very satisfactorily.

"Pawtucket Spinning Ring Co. and I are working together on these speeds. I am anxious to find out what 10,000 on a three-inch ring will do to the life of the ring before changing my whole job to this speed. I feel that even higher speeds are possible even with our present equipment. I would like to state here that to attain and hold the speeds just mentioned, satisfactory climatic conditions must be maintained at all times in the spinning room. To do this, one has to have refrigeration."

Another point brought out later by Mr. Paget is that the same traveler cannot be used for the same count for all spindle speeds. The traveler must be balanced to the count, the ring, and particularly to the speed at which it will be run.

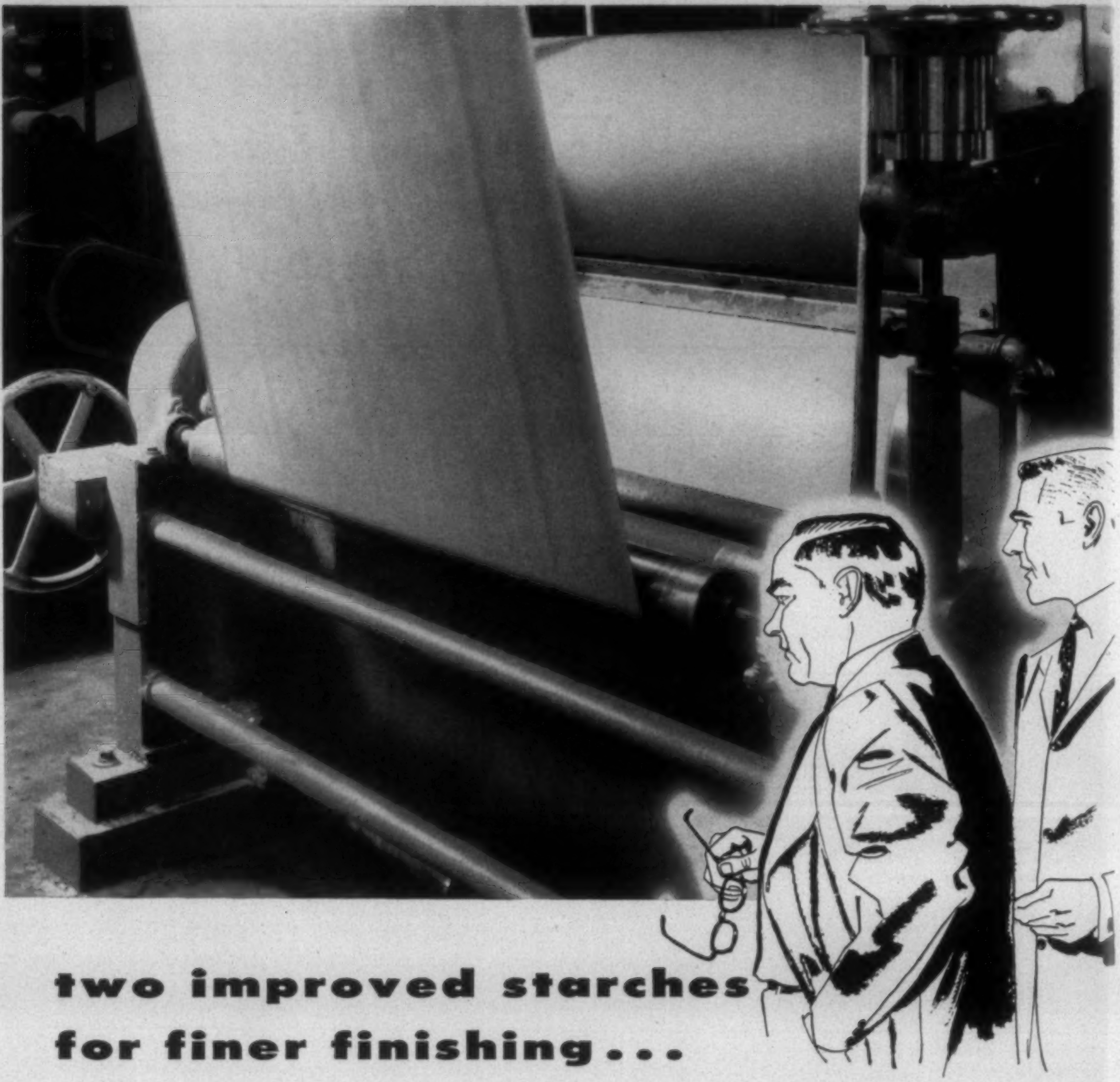
In conclusion, it seems to us that the secret of success in running a model mill is the attitude of mill management. Mr. Paget has demonstrated that he has a willingness to try different experiments and tests before accepting or discarding an idea. Many innovations are found in his mill, such as special roving trucks, clearer sweeper and doffing boxes, which have been developed to improve efficiency or cleanliness. Mr. Paget and Veeder-Root worked together to adapt a stop motion that would allow the spinning frames to run a predetermined length of time. This is now nearing completion stages and probably will be installed on all of the frames.

Absolutely the most vital reason for the ability of Werthan Bag to accomplish what it has is due to the supervision of the mill. Mr. Paget and all of his management crew have carefully followed a strict system of maintenance, cleanliness and close attention to the many small details which could spell the difference between success and failure. The mill operatives have fallen into the same pattern of thought and scrupulous conscientiousness in making their jobs above reproach. This is the real secret that Mr. Paget has revealed to us.

Supima Assn. Seeks To Halt Runaway Prices

A five-point legislative program designed to prevent runaway prices on American grown extra long staple cotton is advocated by representatives of the Supima Association of America, an organization of 3,000 extra long staple farmers of West Texas, New Mexico and Arizona.

Mitchell Landers of El Paso, executive vice-president of the association, said that the organization was asking Congress: (1) To release American extra long staple cotton from the military stockpile as it is needed. (2) To set up, as quickly as market conditions permit, a special reserve stockpile of domestic extra long staple, apart from the lean stock and the military stockpile. This special reserve would be regulated by the Secretary of Agriculture to maintain a level supply and a stable price. (3) To amend existing agricultural legislation to permit the support price of American extra long staple to remain at 75 per cent of parity instead of the current 75 to 90 per cent level. (4) To change the marketing year on extra long staple cotton from August 1 to October 1. This is designed to make the marketing year conform to the harvest year. (5) To invoke marketing quotas on extra long staple cotton whenever the supply exceeds 100 per cent of demand, instead of 108 per cent, as specified under current legislation.



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Warp Preparation & Weaving

C. & K. Featuring 'PAPA' Loom in '57

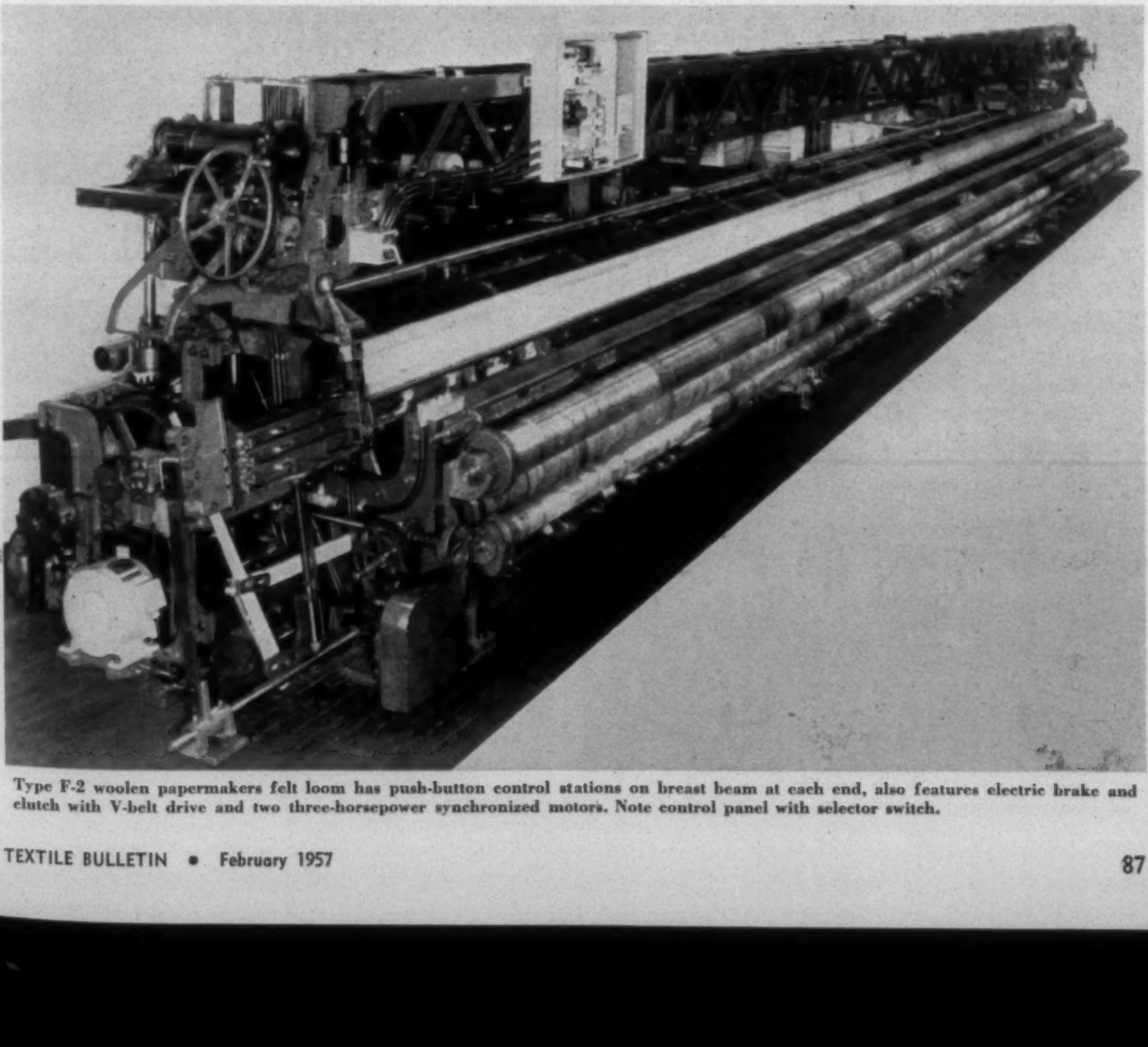
By W. C. HOWE, Crompton & Knowles Corp., Worcester, Mass.

NEW developments requiring engineering, pattern and tooling expense running into hundreds of thousands of dollars will be emphasized by Crompton & Knowles Corp. this year.

In line with the firm's policy of serving an entire cross section of the weaving industry, neither its long-range research nor its immediate engineering effort is confined to a specific field. The result is a wide range of endeavor and programs in various stages of completion, each channeling into its own or interrelated fields to maintain the gradual improvement in weaving machinery, which has the most beneficial, while at the same time, the least upsetting effect on textile economics.

As an illustration of interrelationship, the development of push-button controls for starting and stopping the loom and for jogging the lay forward or backward, together with electronic magnetic protection to improve performance and eliminate shock to the loom, as well as electric brake and clutch motions and independent motor-driven head-reversing mechanisms, could only be developed at the beginning for looms running as high as $50,000 each in value, because of the then high cost of the electrical and electronic features involved. Having established the operating value of such devices on specialty looms such as the Type F-2 woolen papermakers felt loom, which is presently built up to and including 650 inches in between swords width and which runs at 28 picks per minute, and the Speedi-Weave loom for multi-shuttle narrow fabric production at speeds up to 250 picks per minute, the problem was to lower costs to the extent that the features could be adopted to standard fly-shot looms.

Much progress has been made, and combinations of electric protection, electric brake and clutch, lay reversing, and push-button controls have been simplified to the extent that costs are reduced from thousands of dollars per loom, as in case of the F-2 loom, to figures that will justify



Type F-2 woolen papermakers felt loom has push-button control stations on breast beam at each end, also features electric brake and clutch with V-belt drive and two three-horsepower synchronized motors. Note control panel with selector switch.

their use on looms for the cotton, rayon, and woolen or worsted industry.

That the problem of cost reduction has been solved is due to engineering know-how which has permitted alteration in controls to handle motor equipment up to six-horsepower capacity with the electrical units operating on a watt rather than a kilowatt basis, as was initially the case.

Field tests on such equipment have already confirmed the desirability of these new features which will be made available on a gradual basis as production tooling is completed.

While such features as we have mentioned will contribute to the effectiveness of the weaver and improved loom performance at higher speeds, as well as lowered maintenance, the reduction in physical effort involved in running the loom should in some cases permit better work assignments or the employment of a type of labor where physical strength is not at a premium.

At the same time, Crompton & Knowles has not neglected the quality aspect of cloth production. An outstanding example in this direction has been the development of the M-P loom which is the first completely automatic bobbin changing loom capable of weaving, on an economic basis, fancy filament fabrics where several colors or classes of filling are involved. This was made possible through the development of the rotary magazine for four colors of (not merely single colored) filling.

Coupled with better control of bobbins and filling at transfer incident to this rotary magazine, are the vacuum filling control feature and the scissors thread cutter which cuts filling at the shuttle eye to further improve threading and help eliminate the bugaboo of drag-ins.

Terry motions for wide Type C (cotton) and Type W (woolen or worsted) looms are available or will be available shortly for widths up to 120 inches between swords for the economical production of many specialty fabrics.

Producers of mechanical fabrics, carpets, etc., have kept an entire section of the Crompton & Knowles engineering department busy for several years, and the result has been the development of wider, stronger and more versatile looms, including the Type D loom used by the cotton dryer felt producers. Modern Type B Axminster carpet looms are being equipped with electrical controls and also stop motions with semaphore systems to indicate to the operator which of the many interrelated mechanisms on the loom has occasioned a stop.

Being mindful of the increasing need of versatility without the usual sacrifice of economies in operation as related to production and work assignments, Crompton & Knowles is now announcing to the trade a new pick and pick automatic loom (nicknamed the "PAPA" loom).

The PAPA loom is fully expected to be the big development of the year to the outerwear trade as well as for upholsteries and even in the production of foundation garments, swimsuits and other fabrics involving the use of covered rubber filling alternating on a single pick basis with some other filling.

Some of the operating advantages and mechanical features which will make C. & K.'s new PAPA 4x3 box loom a major step forward in the weaving of men's and women's wear in all-wool, worsted or blends as well as upholstery and many other specialty fabrics are as follows:

(1) Elimination of "dead picks" or lost time for replenishing filling means increased production.

(2) A very much wider range of box pattern possibilities due to the presence of a three-cell shuttle box at the drive end.

(3) In addition to a very wide range of fancies which may be woven on a pick and pick automatic bobbin changing basis, better blending is possible since either four or five shuttles may be used, these picking in a fixed sequence of:

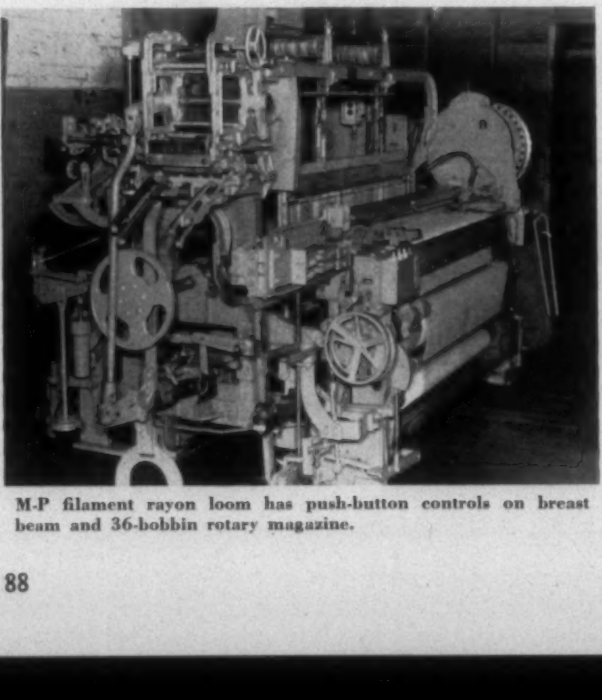
4—Shuttle—1 2 3 4, 1 2 3 4, etc. or
5—Shuttle—1 2 3 4 5, 1 2 3 4 5, etc.

(4) Smaller bunches on bobbins (less filling waste than on the popular Select-A-Pic loom), and on some patterns normal bunches may be used.

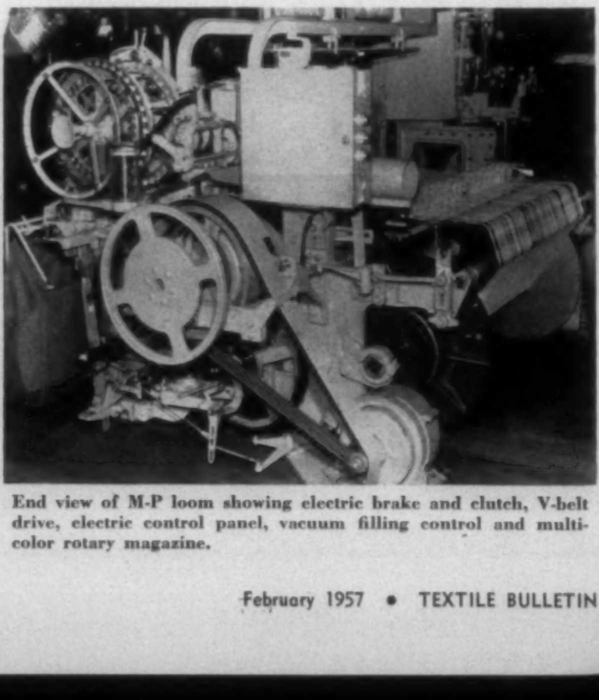
(5) Drastic reduction or virtual elimination of drag-ins.

(6) Without major loom conversion the PAPA loom, in addition to automatic pick and pick fabrics, may be run automatically on regular 4x1 box and 4x2 box patterns and non-automatically with the feelers stopping the loom before the filling runs out on those 4x3 box jobs that cannot be woven automatically.

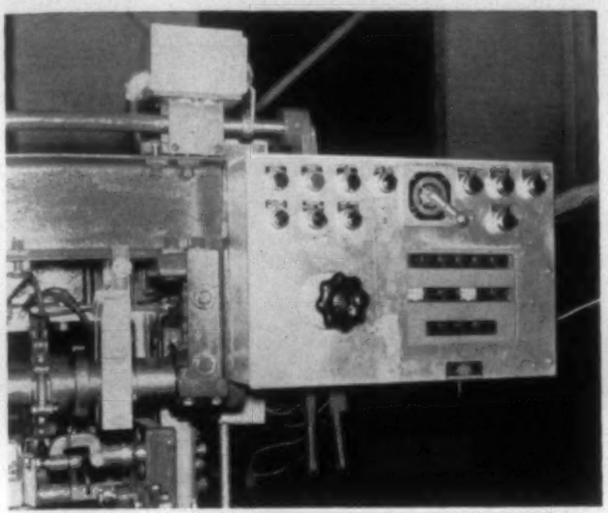
All of the foregoing add up to lower operating cost



M-P filament rayon loom has push-button controls on breast beam and 36-bobbin rotary magazine.



End view of M-P loom showing electric brake and clutch, V-belt drive, electric control panel, vacuum filling control and multicolor rotary magazine.


Push-button control, selector switch, annunciator and rheostat speed control for Type B Axminster carpet loom.

due to increased loom output, increased output per operator and decreased seconds on this most versatile of looms.

Mechanical Features

Mechanical features contributing to the performance and economies of operation of the PAPA loom include:

(1) *4x3 box automatic bobbin changing with a split box at the drive end*—Permitting two shuttles to be "dwelled" in the lower cells while a transfer is made on a third shuttle in the top cell.

(2) *Feelers are a bank of four at the head end*—This permits using two or more different types of feelers at the same time if desirable; that is, light or regular touch electromechanical on such yarns as lurex, Mylar or other metallic yarns, and all-electric if required for non-metallic, filament or fine yarns, etc. Yarns such as woolens or worsteds and most blends would work equally well with either type of feeler. Feelers being on the head end are in a better position for non-automatic operation if ever necessary, as exhausted shuttle will stop at the drive end where the filling is usually stored. Better indication occurs since no critical timing problems exist.

(3) *Inertia Transfers*—Simultaneously, moving box and transfer hammer create a condition contributing to positive transfer and fewer bad doffs.

(4) *Plunger-Type Stop Motion for Top Shuttle Box at Drive End*—Stops loom if shuttle is not in proper position for a transfer. Also, will stop loom during normal operation if shuttle in top cell is not properly boxed.

(5) *Scissors Thread Cutter*—A scissors thread cutter made as an integral part of the "rising" box cuts the filling at the eye of the shuttle, eliminating the long tail on the outgoing bobbin and helping to reduce drag-ins.

(6) *Swisher Motion*—At time of transfer a "swisher" motion or placer arm mounted on the inside magazine frame contacts the filling between the scissors thread cutter and the selvage, withdrawing the cut filling from the shuttle box and presenting it to the vacuum-operated suction tube where it is held at an angle which insures early cutting by the new scissors-type temple cutter; following this, the cut end is free to be retracted through the suction tube to waste filling receiver at outer end of loom.

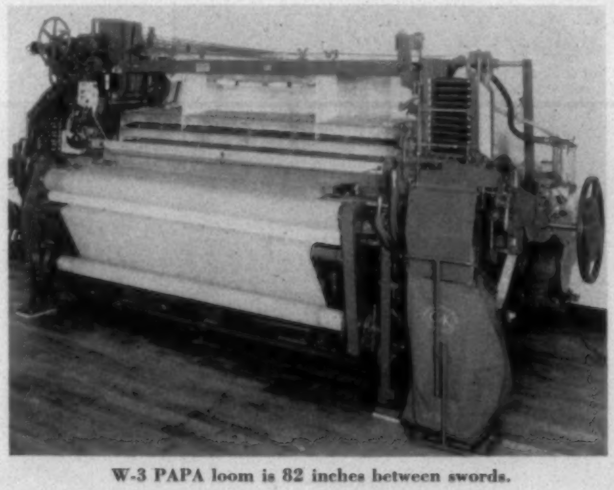
(7) *Filling Placer and Thread Hook*—Two sets of filling placers and thread hooks, one on either side of the magazine, push and place the filling on the new (ingoing) bobbin in such a position as to facilitate early temple cutting, following which the combination of vacuum and jet control system withdraws yarn from the danger (drag-ins) area and makes possible easy withdrawal of end into waste filling receiver at outer end of loom.

(8) *Vacuum and Jet System*—A double-acting pump is mounted on the loom side and actuated by a connection to the reciprocating lay to provide the vacuum as well as the air jet. This system accomplishes the following: (a) The vacuum system holds taut the tails from the bobbins stored in the magazine to the filling end holder. The vacuum also sucks the filling through the holder into the receiver after the bobbin is transferred and the yarn is cut at the temple. (b) Jet of air under the filling between the holder and the magazine keeps the stored filling from contact with the moving lay parts. The jet also helps retract the filling on the ingoing bobbin after the temple cuts it at the selvage and assists the vacuum control in disposing of the waste end. (c) A second vacuum-operated suction tube extends to a point opposite the "swisher" on the inside magazine frame and holds the filling when cut by the scissors thread cutter at the eye of the shuttle, at an angle which insures early cutting by the temple, after which the vacuum withdraws the cut filling into the waste filling receiver.

A revolutionary new temple cutter construction made possible by the combination of vacuum and jet filling control systems permits locating the temple almost in contact with the reed, thus holding the cloth better and permitting early cutting. The cutter employs a scissors arrangement with positive control (no straps or springs) and will permit a shuttle to dwell at that end of the loom for any required number of picks without cutting the filling until required to do so after transfer.

Bobbins are thrown forward between the upper and the lower box at transfer by a moving deflector, and a closed chute funnels the empty bobbins into a light, easily removeable bobbin bag which is definitely located by a floor plate. The bag holder is adjustable for height, and the bag will hold about 200 empty bobbins without interfering with transfer or causing a drag-in.

Indication from both transferring and box mechanisms is simple and eliminates critical timing problems. All box


W-3 PAPA loom is 82 inches between swords.

pattern indication is separate from harness pattern indication so long harness chains are not required for synchronization.

Since no dead picks are involved, no problems are created when the loom is to be run under a jacquard.

To further explain the capabilities of this new and worthwhile development, a brochure has been prepared which provides instructions, details of operation, interrelationship of motions, and in addition, box chain and harness chain drafts of many pick and pick fabrics which would normally require a 4x4 box non-automatic loom to weave.

Bleaching, Dyeing & Finishing

Electronic Controls in the Finishing Plant

By LEO WALTER, Consulting Engineer

THE use of photoelectric cells in lighting control, intrusion safeguards, for automatic weighing and filling, counting, limit switching and other functions is well known in industry. Such uses are graphic. In the textile finishing industry various sensitive detecting elements are used somewhat less glamorously but just as effectively. The following examples are cited from case studies included in "Cutting Production Costs with Electronic Controls," by the Photoswitch Division of Electronic Corp. of America Inc., Cambridge, Mass.

After bags are manufactured, they are arranged for bundling in piles of a predetermined number. In setting up a conveyor which moves a counted stack of bags a predetermined distance in order to make room for another stack, an electronic timer was installed (Fig. 1). This timer operates an electric motor which drives the "carry-away" conveyor. An air cylinder-actuated fork is mounted just below the delivery end of the feed conveyor.

On delivery of a bag, the work is rotated by the air cylinder through an arc of 90° to deposit the bag on the top of the stack being built up on a second conveyor The photoelectric control beam is aimed between the tines of the fork, and out of the travelling path of the fork and bag.

The photoelectric control beam is so located that it will be interrupted by the overhang of a bag as it leaves the feed conveyor. It operates both the air cylinder-actuated fork and the predetermined counter. The inspector places the bag on the feed conveyor. The bag travels to the end of the conveyor and the leading edge travels practically straight down as the bag passes off the end of this conveyor. When the leading edge of the bag breaks the photoelectric beam, the photoelectric control operates a solenoid valve and the fork rotates through a 90° arc, throwing the bag onto the "carry-away" conveyor stack. The bag then passes out of the light beam, causing the photoelectric control to reverse the solenoid valve and the air cylinder to raise the fork.

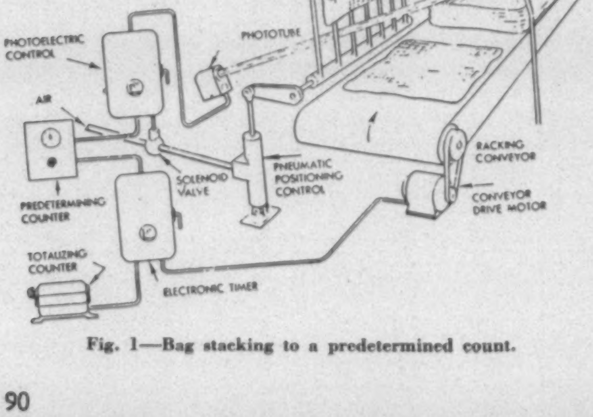


Fig. 1—Bag stacking to a predetermined count.

An additional feature is an electric totalizing counter which computes the output of bundles directly. Considerable benefit resulted from increased production and the elimination of re-counting.

Cloth Level Indicator and Control

A textile finishing mill had the problem of indicating high and low levels of the fabric in a J-box used to store wet cloth between steps in the continuous finishing process. Cloth is fed into the open end at the top of the vertical section and removed from an opening at the end of the curved section. If the process for which the cloth is being removed slows down or stops, the feed into the J-box must be controlled so that the box does not overflow.

Electronic level controls have provided a simple, reliable solution to this control problem. The J-box is equipped with two sets of level controls with flat-faced probes. The upper probe is located near the top of the box to indicate high level. The lower probe is located near the bottom of the box for low-level indication and feed control (Fig. 2).

Initially the wet cloth is fed into the box at a constant rate until it contacts the upper probe. The high-level indicating light then comes on to indicate that the box is filled with wet cloth. The feed is shut off until the cloth level drops to the low-level probe. When the cloth reaches the low-level probe position the low-level indicating lamp is turned on and the feed started. This cycling continues in accordance with the speed at which stored material is removed for later stages of the textile finishing process. It is claimed that this simple, inexpensive installation re-

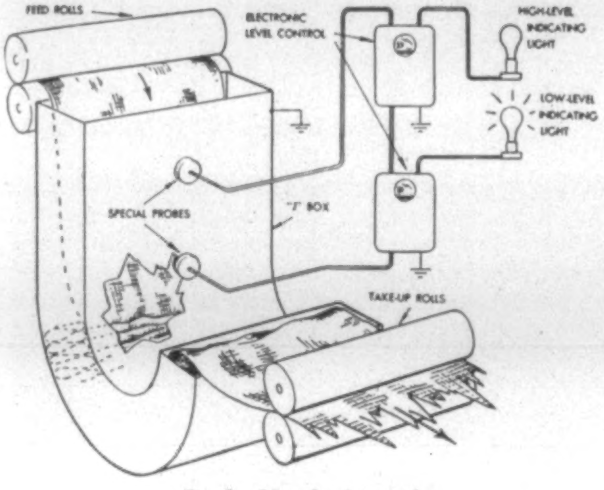


Fig. 2—J-box level control.

quires no maintenance and eliminates cloth damage due to spilling or tearing.

Machinery Safeguard

A textile manufacturer uses a dyeing machine which feeds the fabric through two sets of pressure rolls as the fabric comes out of the dyebath. Tons of pressure are applied to these rolls in order to squeeze the dye into the fibers. The operation is highly dangerous to the operator and requires the most reliable safeguard.

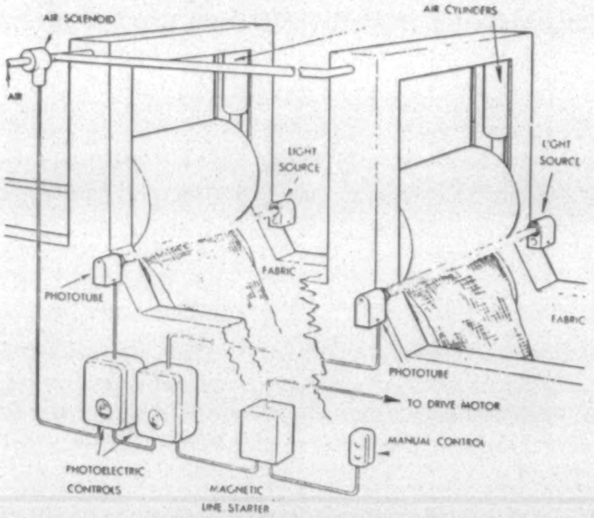


Fig. 3—Safeguarding rollers.

A photoelectric machinery safeguard was selected as the most foolproof solution to this protection problem (Fig. 3). The photoelectric control beam is projected across the 12-foot width of the pressure rolls at the nip where the two rolls meet. Every inch of the danger area is monitored. Thus, any part of an operator's body or any other object coming within the danger area of the nip will break the control beam. If the control beam is broken, photoelectric relay action immediately stops the drive motor and at the same time operates the air cylinder solenoid valve, releasing the tons of pressure and opening the rolls. The photoelectric control was designed so that if power should

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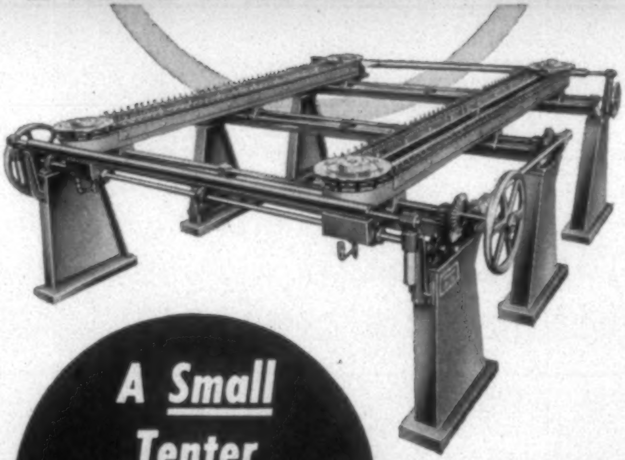

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fail or tubes need replacement, the machine drive stops and the rolls separate.

Electronic Control of Cutting Operation

One mill needed an automatic device to cut the connecting threads between pillow cases as they pass on a continuous conveyor line. The work, traditionally done by manual shears, was slow, tedious and inefficient.

Automatic shearing is now done with a photoelectric control and an electronic timer used in conjunction with a solenoid-operated reciprocating knife (Fig. 4). The photoelectric control is installed so as to observe the continuous chain of pillow cases below it on the conveyor. As long as the control beam is interrupted by a pillow case, the knife remains inoperative. Whenever the control beam is restored by a gap between pillow cases, the control and timer relay completes the circuit of the solenoid-operated knife. The knife then cuts the chaining thread. Operation of the photoelectric relay also operates the electronic timer. At the end of the short time interval, the timer opens the knife solenoid circuit to retract the knife before the next pillow case breaks the control beam.

Photoelectric Edge Position Control for Tenter

In textile finishing plants, the cloth is usually guided as it runs through processing baths and driers. As it comes from feed rollers, tenter hooks engage its edges. It is important that these hooks stretch the cloth to prevent shrinkage. To accomplish this, the tenter guides, along which these these hooks move, are made to travel in and out by reversible motors. This motion must correspond to the width of the cloth as it travels along.

The first attempts to control these tenter guides made use of light hinged feelers which contacted the edge of the cloth and operated electrical contacts which controlled the tenter guide motors, moving the tenter guides in and out. Light mesh or cloth is very delicate especially when wet. The feelers pressing against the edge of this cloth cause it to wrinkle before sufficient force can be exerted on the feelers to actuate the tenter guide control.

This undesirable wrinkling of the cloth was eliminated by the use of photoelectric controls to operate the tenter guides. In this application four complete sets of photo-

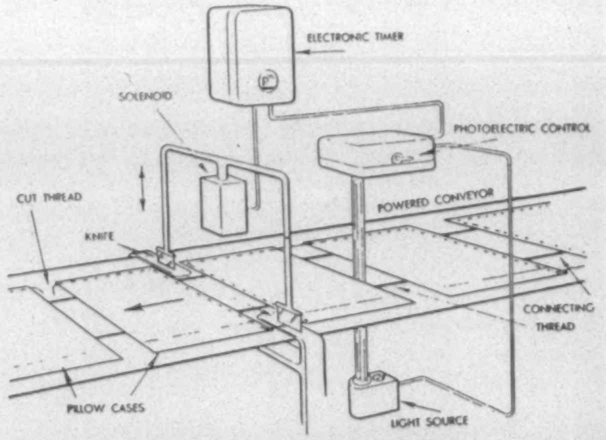

Fig. 4—Control of cutting operation.

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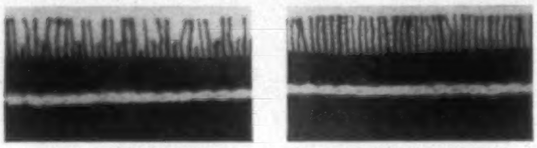

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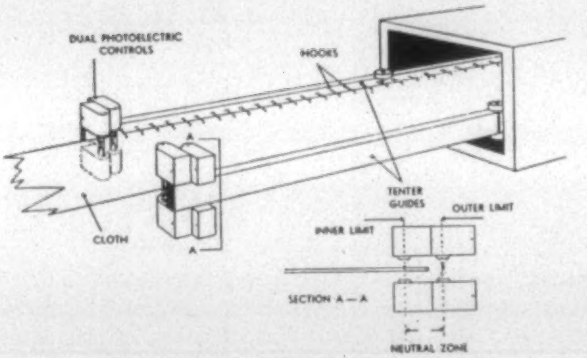

Fig. 5—Edge position control of fabric on tenter.

electric controls are used for each installation. Two of the controls are required to govern the inward and outward motion of each tenter guide. One set of photoelectric controls is mounted so that it is normally outside the edge of the web, and as a consequence this light beam is normally not broken. The other set of photoelectric controls is mounted so that its light beam will be normally interrupted by the edge of the web. The space between each pair of photoelectric controls determines the neutral zone. Accuracy is increased by using light beams of small diameter. Each pair of controls is mounted on the tenter guide frame which it controls.

The operation (Fig. 5) is as follows: If either of the controls, which have their light beams normally completed has its light beam broken by the edge of the web, the control equipment operates moving the tenter guide outwards to re-establish the light beam and restore the normal relationship between the edge of the web and the tenter guide frame. If either of the units whose beams are normally interrupted by the edges of the web has its light beam completed due to the edge of the web moving inward, the control equipment operates moving the tenter guide inward so that it once again cuts the light beam with the edge of the web. Thus, the tenter guide frames follow the contours of the edges of the web without the necessity of mechanically touching these edges. With this control system, cloth as thin as mosquito netting will cut off sufficient light for satisfactory operation of the tenter guide controls.

Maintenance, Engineering & Handling

Electronics as an Engineering Partner

By GEORGE B. HOADLEY, Head, Electrical Engineering Dept., North Carolina State College

Acceptance of electronic devices as useful tools by the plant engineer is stressed in this paper delivered recently at the A.I.E.E. conference on electrical equipment for the textile industry.

IT IS often difficult for a person who has been concerned only with switches, fuses, circuit breakers and motor starters to accept an electronic device as a real partner to these more familiar pieces of electrical equipment. Only when it becomes clear that the electronic device offers some plus factor will it gain acceptance. This paper will present some of the unique characteristics of electronic circuits which make them useful for certain applications in the textile industry.

Perhaps the first attribute of the electron tube is its ability to amplify an exceedingly small amount of power by a very large factor. To illustrate this, let us examine the Type 5692 tube, which is a twin triode designed for 10,000-hour life, rigid construction, extreme uniformity and exceptional stability. Each half of this tube will give an output of 200 milliwatts with a power input to the circuit of only 20 microwatts. These are very tiny powers compared to motor horsepowers, but the important factor about this electronic tube is that the output power is 10,000 times as large as the input power! In addition, this tube will amplify power inputs as low as one ten-billionth of a microwatt. This is almost inconceivably small, and yet such performance is typical of a large number of receiving-type tubes.

Characteristics such as these are most useful in measuring equipment. There are a large number of devices capable of converting some type of quantity, like temperature, into electrical signals. Usually these electrical signals are of very low power and need amplification before they can be put to use. Thus we find electronic devices as common components of instrumentation devices.

A second important characteristic of an electron tube is its speed. In a tube such as we mentioned above, it takes each electron much less than a millionth of a second to cross the vacuum space in the tube, so the tube is fast! In many applications, this speed is much higher than is needed, but there is no extra charge for it, and it does not hinder the use of the tube. In some other applications, such as the use of electron tubes to generate high frequency heat energy, this extreme speed is really needed. Without it, our electronic heaters for setting the twist all the way through a bobbin of yarn would not be possible.

Perhaps the most striking use of electronics comes when we apply it together with electric circuit elements, electric machinery and transducers. (A transducer is a device which changes a non-electrical quantity, like pressure, into an electrical one.) Such a combination, when properly engi-

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neered, becomes an automatic control system, capable of controlling a process much more accurately, effectively and quickly than can a human being.

Probably the real reason for this is that automatic control systems are essentially very stupid things. They do just what they are told to do. They have no brains in which thoughts can stray. They never see the blonde secretary. They continue doing what they are set up to do as long as the switch is turned on. Yet this very concentration on their own job makes them seem to be super-human. In reality, they are in a class such that they could not even be called sub-human!

As an example, consider an electronic stop-motion device. Here a beam of light may be directed at a photocell through an area where there should be some material being processed. This material keeps the light from reaching the photocell. If a break occurs, the light hits the photocell. This releases enough power in the photocell to operate an amplifier, which in turn releases enough power to operate a relay, which in turn energizes a switch which stops the entire processing machinery. All of this up to the final switch happens in less than a thousandth of a second, so as far as a human being is concerned, it is instantaneous. The human could not even begin to move towards the switch in this time. And moreover, as long as power is on the electronic system, it is always ready. It never daydreams.

A similar situation exists relative to inspection of materials. For example, to inspect yarn for variation in thickness, and to do it rapidly, the yarn is passed between a pair of plates which constitute a capacitor. Variation in the thickness of the yarn changes the number of micro-microfarads in this capacitor. Thus the capacitor becomes the transducer, reflecting changes in yarn thickness as changes in capacitance. Electronic circuits amplify this effect to provide enough power to trigger a stop mechanism and to operate electronic instruments to analyze the variation in yarn thickness for quality control purposes. If the yarn is traveling at a speed of one thousand feet per minute, and the capacitor plates are an inch long, a flaw in the yarn is in the measuring head for only one two-hundredths of a second. But this is an age or two compared to the speed of operation of the electronic device. So here again, the double-threat character of the electronic system, the high speed, and the ability to respond to inconceivably small amounts of power, makes the electronic system able to do a job no human could ever do.

At times, electronic systems are used as part of a closed cycle system used to control a process. The weft-straightener used to keep the proper relation between the two edges of the cloth as it passes through the tenter is of this character. First, there must be a transducer to change a skew of the weft into an electrical signal. Then there must be amplifiers to strengthen this signal until it can control the positioning of the rolls which drive the two edges of the cloth. If one side falls behind, the transducer notes this and signals the system to advance the lagging side. This is done, but there is always the possibility that the lagging rolls, in trying to catch up, would coast beyond the proper position. Then the action would be to reverse the process, so that the system might build up oscillations, skewing the cloth first one way and then the other. To overcome this, the system is analyzed mathematically, and an electronic network system, sometimes called a "derivative control," is designed to anticipate this overshooting tendency, and compensate for it. It may seem that this network is a "brain," but really all it does is carry out compensations in just the way it was designed. It cannot accommodate itself to new factors that were not included in its design.

The list of specific applications is long but all of them use electronic systems because of the speed, amplifying ability and extreme sensitivity of these devices. But even now, competition is entering the field, and we have transistors and magnetic amplifiers on the horizon. Both have been under intensive development in the past few years. So far, neither is the equal of the electronic tube in all its characteristics, but the art is moving rapidly. Already these new devices are capable of doing many of the jobs now done by electronic tubes, and in the years ahead, we may see new pieces of equipment with the catch line, "No electron tubes," just as in the past we have seen electronic devices advertised as having "no moving parts."

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

F. E. Grier

F. E. Grier, president of Abney Mills, chairman of the board of Erwin Mills and president of the American Cotton Manufacturers Institute, will receive an honorary Doctor of Humanities degree from Lander College, Greenwood, S. C., at the school's 95th commencement exercises Sunday, May 26. Mr. Grier, a native of Due West, S. C., received his A. B. degree from Erskine College in 1920. He has held the position of treasurer of Erskine College since 1924. . . . W. H. Rawlings has been elected treasurer of Erwin Mills. With the company since 1949, he continues as manager of the cost accounting department. . . . A. C. Sorrell, who joined Erwin in 1953, has been named assistant controller. . . . Hanns Bard, formerly manager of the spun plants of the Toxaway Division of Abney Mills, Anderson, S. C., is now representing Woodward, Baldwin & Co. Inc., New York City, in the sale of Abney Mills cotton and synthetic yarns. Mr. Bard is making his headquarters in the Radio City Building, Charlotte, N. C. A native of Germany, Mr. Bard came to the U. S. in 1927. He was with Dallas (Tex.) Cotton Mills from 1927-39, working his way up to superintendent and later vice-president. From 1939-47 he was general superintendent of The Jefferson Mills with plants in Jefferson, Crawford and Royston, Ga. In 1947 he was elected president of the Dallas (N. C.) Mills. He left that post in August 1954 to join Textron. During the period of August 1954 to November 1956, he was manager of the spun plants of the Toxaway Division. . . . W. M. Carlisle, manager of the cotton plants of the Toxaway Division, has also been placed in charge of the spun plants, succeeding Mr. Bard. The Toxaway Division operations have been consolidated, with Mr. Carlisle as manager of Toxaway Plant, Ladlassie Plant, Riverside Plant and Southside Plant. For Gossett Dyeing and Finishing Plant, the responsibility for general supervision has been transferred from Mr. Carlisle to Creighton Griggs, general manager of the Renfrew Plant at Travelers Rest, S. C.

Roland E. Derby, president of Textile Aniline & Chemical Co., Lawrence, Mass., has been appointed treasurer of the American Association of Textile Chemists & Colorists. Mr. Derby succeeds Albert E. Sampson of National Aniline Division, Allied Chemical & Dye Corp., who resigned Jan. 1 after many years service in the post. Mr. Derby has been connected with the A.A.T.C.C. since 1921, the year the association was founded. He has served the organization as chairman of its Northern New England Section, national councilor and national vice-president. In 1953, he was the recipient of the Olney Medal, highest A.A.T.C.C. award.

Philip L. Pindell has been named sales representative in North and South Carolina for the Benjamin Booth Co. of Philadelphia, Pa. Mr. Pindell was formerly connected with the Charlotte (N. C.) Leather Belting Co., and is now a manufacturers' representative for textile equipment in the Carolinas.

The North Carolina State College School of Textiles has announced three additions to its staff. Dr. Heinz Hefti has been named assistant professor of textile chemistry, Henry T. Crigler an associate professor of textiles, and Robert E. Wiggins an instructor in the department of fiber and yarn technology. A native of Switzerland, Dr. Hefti had been a chemist for the Netstal finishing plant of Stoffel & Co. in Switzerland the past two years. Mr. Crigler is a graduate of the Philadelphia Textile Institute and the Citadel. He also holds a master's degree from Clemson College. He was a staff member of the N. C. Vocational School at Belmont, and an administrator and supervisor in Gossett Mills. Mr. Wiggins is a graduate of the N. C. State College School of Textiles. He handled field testing and evaluation of clothing items for the Quartermaster Corps from 1952 to 1954, was assistant superintendent of the Burlington, N. C., plant of Madison Throwing Co.. and later was transferred to the plant at Madison, N. C., where he was in charge of production development in setting up quality control.

E. Jack Lawrence

E. Jack Lawrence has been appointed Southern agent for Howard Bros. Mfg. Co., Worcester, Mass. The new post is in addition to his duties as Southern manager for the company. All sales and service, as well as supervision of branches in Atlanta, Ga., and Gastonia, N. C., come under his direction.

Stanley Ellington, a native of Henderson, N. C., has been named a quality control engineer with Fieldcrest Mills Inc. Mr. Ellington graduated from North Carolina State College in 1952 with a B. S. degree in textile manufacturing. Since graduation, he has served as an officer in the Air Force.

Ernest O. DeFore has been appointed general manager of Deering, Milliken's Gayley Mill Corp., Marietta, S. C. This post is in addition to Mr. DeFore's present duties as vice-president and general manager of Excelsior Mills No. 2 at Clemson, S. C. Raymond C. Owings will continue as plant manager of Gayley Mill. . . . William H. Moore, formerly manager of Deering, Milliken's Machias, Me., mill, has been named manager of Kingsley Mill Corp., Thomson, Ga. He succeeds William S. Manning, who resigned to join Burlington Industries at Greensboro, N. C., as manager of the filament weaving division. Succeeding Mr. Moore at Machias is W. A. Goodwin, formerly with Judson Mills, Greenville, S. C.

P. A. Redmond Jr.

Paul A. Redmond Jr., president of Alabama Mills Inc. until it became a division of Dan River Mills last year, has resigned as an official of the latter organization. Associated with Alabama Mills since 1939, Mr. Redmond began his career with the company as a designer. He later served in various mill supervisory positions until his appointment in 1944 as assistant to the president. He was named executive vice-president of the firm in 1948, and was elected president in 1955. In addition he served as president of Anchor Rome Mills, Rome, Ga., until that operation was also acquired by Dan River last August. He is a past president of the Alabama Cotton Manufacturers Association, and currently is a director of the American Cotton Manufacturers Institute. He has not announced his plans for the future.

A. I. Lindblom, secretary and assistant treasurer of Deering, Milliken's Drayton Mills, Spartanburg, S. C., has been assigned the additional duties of controller and secretary of the firm's Laurens (S. C.) Mills.

J. D. Bynum has been named assistant superintendent of Pharr Worsted Mills Inc., Pharr Yarns Inc. and Stowe Mills Inc., all of McAdenville, N. C. . . . Glenn Hall has been named superintendent of the synthetic division of Pharr Worsted Mills Inc., and Earl Mullinax has been promoted to superintendent of Stowe Mills No. 1.

Malcolm G. Jones has been retained by Virginia Carolina Chemical Co. to make a study of its textile fiber operation. Mr. Jones was formerly president of Sidney Blumenthal & Co. Since his retirement from the industry last September he has been engaged in real estate in Waynesboro, Va., which he plans to continue. The study at Virginia Carolina is expected to take two to three months to complete.

Dwight Scoggins has been named manager of National Spinning Co., Washington, N. C. He succeeds Leon Le Maire, who has been promoted to superintendent of the company's research and development department.

W. B. Hill, formerly division manager of Mooresville (N. C.) Mills, has been elected executive vice-president of Highland Cotton Mills, High Point, N. C. Mr. Hill succeeds H. F. Hunsucker, board chairman. Prior to his association with Mooresville Mills, Mr. Hill held executive positions with Callaway Mills and Deering, Milliken.

B. W. McKenzie has been named superintendent of the Radford, Va., weaving plant of Burlington Mills. Mr. McKenzie succeeds Donald Bair, acting superintendent for the past six months, who has been as-

A.A.T.C.C. BRASS—National officers, sectional councilors and chairmen of national committees of the council of the American Association of Textile Chemists and Colorists assemble for photo on occasion of first council meeting of 1957, Jan. 18 in New York at the Statler Hotel.

Front row, left to right: **Roland E. Derby, new A.A.T.C.C. treasurer; Albert E. Sampson, retiring treasurer; Charles W. Dorn, chairman, executive committee on research; H. Gillespie Smith, vice-president, Southern Region; George P. Paine, executive secretary; George O. Linberg, A.A.T.C.C. President; Ernest R. Kaswell, vice-president, New England Region; Elliott Morrill, vice-president, Western Region; Weldon G. Helmus, vice-president, Middle Atlantic Region; Richard R. Frey, assistant secretary.**

signed staff duties with the filament weaving division of Burlington. Mr. McKenzie was plant manager of the Hartwell, Ga., plant of Amerotron Corp. for three years. Prior to that he was superintendent of Amerotron plants at Honea Path and Williamston, S. C.

Bernard Werthan, vice-president of Werthan Bag Corp., Nashville, Tenn., has been elected president of the Textile Bag Manufacturers Association. He succeeds R. N. Connors, executive vice-president of Chase Bag Co., Goshen, Ind. Named a director of the association was Joe Werthan, president of Werthan Bag Corp.

R. T. LeGrand Sr. has been elevated to the newly-created post of chairman of the board of Shelby (N. C.) Cotton Mills. Succeeding him as president is R. T. LeGrand Jr., who also continues as treasurer. George Blanton Sr. was re-elected vice-president, and William F. LeGrand was elected secretary and assistant treasurer. The new chairman of the board has been with the mill since 1914. He served as superintendent from 1914 to 1933. In addition he also served as secretary-treasurer, having been named to that post in 1924. In 1942 he was elected executive vice-president and treasurer, and in 1944 he succeeded the late Charles C. Blanton as president of the company.

Marshall B. Hall of Atlanta, president of the Trust Co. of Ga., has been elected a director of Pepperell Mfg. Co.

William D. Appel, chief of the textiles section of the National Bureau of Standards, Washington, D. C., will be presented the Harold DeWitt Smith Memorial Medal March 21 by the American Society for Testing Materials. The eighth recipient of the award, Mr. Appel has taken a prominent part in the development of standards for test methods and specifications. He served three terms of two years each as chairman of the A.S.T.M. Committee D-13. In 1948, he was a delegate to the organizational meeting of Technical Committee 38 on Textiles of the International Organization for Standardization held in England. He was also a leader of the U. S. delegations to the I.O.S. meetings in England in 1951 and 1956. The award will be made during the Spring meeting of Committee D-13 at the Sheraton-McAlpin Hotel in New York City.

Edward F. Skinner, vice-president of Meinhard & Co. Inc., has been named a director of the old-line factoring firm. Mr. Skinner has been with Meinhard since 1946 and was for seven years in charge of the Charlotte, N. C., office. Since 1953 he has been in the company's headquarters in New York, where he is in charge of the company's Southern clientele.

William P. Wright Jr., vice-president and textile accounts supervisor, J. Walter Thompson Co., has been elected chairman of the Textile Section of the New York Board of Trade. He succeeds J. Morton Curran Jr., president of Morton Curran & Co. Inc. Thomas O. Boucher, vice-president of Chicopee Mills, was elected vice-chairman;

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Ralph J. Bachenheimer, Iselin-Jefferson Co. Inc., was re-elected treasurer; and Jackson E. Spears, vice-president, Burlington Industries Inc., was elected as representative to the New York Board of Trade Directorate. Newly-elected to the Textile Section's executive committee were Herbert L. Werner, president of Werner Textile Corp.; Kenneth Durham, vice-president of Chemical Corn Exchange Bank & Trust Co.; John M. Bendheim, M. Lowenstein & Sons; and Reuben Pitts Jr., Marsales Co. Inc. Mr. Wright was formerly assistant to the president, Greenwood Mills Inc. Prior to joining Chicopee in 1950, Mr. Boucher was assistant general counsel of Johnson & Johnson Inc., parent corporation of Chicopee Mills Inc. Mr. Bachenheimer was recently selected as "the outstanding young textile man of the year." The Textile Section is a trade group composed of over 100 mills, commission houses, manufacturers and firms in allied industries, which was organized in 1927.

Leeson, Barrie

BARRIE BREAKS 25-YEAR BARRIER—Frank P. Barrie, Southern district manager for Universal Winding Co., was the recipient of a service award at a company dinner in Providence, R. I., Jan. 31. The award dinner, which is an annual affair with Universal Winding Co., was held at the Sheraton-Biltmore Hotel, in recognition of company employees who had completed 25 years or more service. Mr. Barrie, who joined Universal in 1931, completed his 25th year in 1956.

Though a native of Rhode Island, he has made his home in Charlotte, N. C., for the past several years. He started with Universal after completing a course in textile engineering at the R. I. School of Design. After working in various company departments, including an apprenticeship, he joined Universal's sales division in 1941 and was later named sales agent for the New England territory. Subsequently he was assigned to the Charlotte office and in 1956 was named Southern district manager and placed in charge of textile sales activities in the South. He is shown here receiving his award from Robert Leeson, president of Universal. Mr. Leeson was also the recipient of an award for 25 years' service with the company.

Robert N. Smith has been elected president of Smith, Drum & Co., Philadelphia, Pa., manufacturer of dyeing and finishing machinery. He is the grandson of Robert P. Smith, one of the two original founders of the business. He has been associated with the company for over 15 years, the past six years as executive vice-president. He attended the University of Virginia and is a graduate of the Philadelphia Textile Institute. Other officers of the company include Harry S. Drum, chairman of the board; Albert Bagian, vice-president; and William H. Gray, treasurer. Mr. Bagian was formerly sales manager and has been with the company since 1945. In his new capacity, he will be in charge of sales, engineering and machinery development. Mr. Gray joined the company in 1950 as controller.

Dr. Francis M. Parker has been named to the newly-created position of director of marketing for American Viscose Corp. As a member of the president's staff, Dr. Parker will administer market research activities as a service to the entire corporation but will concentrate attention on new products stemming from the recently expanded research and development division. For the last two years, Dr. Parker has been marketing director of the chemical division of Merck & Co. Inc. From 1950 to 1954 he was director of sales for all products for Merck. For the previous 16 years he was associated with the industrial sales division at Merck, moving from technical sales representative to manager of the division.

Walter M. Kelly, president of Commercial Factors Corp., has been named a director of C.I.T. Financial Corp. Commercial is an operating subsidiary of C.I.T. Mr. Kelly has been with Commercial since 1953. He was made a director in January 1954; executive vice-president in June 1955 and president in January 1956.

John P. Holmes, vice-president of Celanese Corp. of America, has been assigned to direct the company's foreign operations. In addition to his position as vice-president and a director of the parent company, Mr. Holmes has been appointed president of three subsidiaries, Celanese International Corp., Amcel Co. Inc., and Pan Amcel Co. Inc., the latter two of which are trading corporations. A native of Gainesville, Ga., Mr. Holmes was graduated in 1926 from Georgia Institute of Technology and worked there for one year following graduation as an instructor in textile chemistry and dyeing. He joined the Celanese organization in 1927, working for two years as a yarn salesman in the company's Charlotte, N. C., office and for an additional two years in a similar capacity in Chicago. In 1931, Mr. Holmes was transferred to New York to take charge of Celanese warp-knit sales. He was appointed a company vice-president in 1945 and continued to direct the company's warp-knit operations until 1955, when he was given charge of textile division merchandising. He was named a company director in 1955. . . . Robert T. Mann has been appointed assistant textile merchandising manager. Mr. Mann joined Celanese in 1948, serving for seven years as director of industrial relations for the company's Rock Hill, S. C., plant. For the last two years, he had worked in New York as assistant to the director of organization planning. . . . James H. Black has been appointed controller of the company. He succeeds Arthur R. Janes, who is assuming other corporate responsibilities following 20 years' service with the company, the last ten as controller.

Dr. Robert W. Work has joined The Chemstrand Corp. at Decatur, Ala., as fiber development department head in the textile research departments. Dr. Work will serve in a liaison capacity between the research and sales divisions and will be in charge of the textile development of end products of Acrilan acrylic fiber and nylon. He comes from a post as assistant technical director of the textile division of Celanese Corp. of America at Charlotte, N. C. He started with Celanese as chief chemist of the Amcelle Plant. He was at the Summit, N. J., research laboratories for several years and left there as assistant manager to become assistant manager of plant operations of the textile division in Charlotte. A native of Chicago, he graduated from the University of Illinois in 1929 and received his Ph.D. degree at Cornell University in 1932. . . . Hamilton Hadden Jr. has been appointed director of the legal department and secretary of the corporation. Mr. Hadden, who succeeds Thomas L. Higginson as secretary, formerly was associated with Shearman & Sterling & Wright for ten years.

Richard Dalessandro, former assistant manager of the Macon, Ga., spinning and weaving plant of Bachmann Uxbridge Worsted Corp., has been named assistant superintendent in charge of quality control of Bristol Worsted, a division of Cobar Industries which recently purchased the men's wear worsted mills of Collins & Aikman in Bristol, R. I.

Harvey Powell has been appointed manager of the Print Works Plant of the Cone Mills Corp., Greensboro, N. C., and George Brandt Jr. has been named superintendent of the plant. Mr. Powell joined Cone Mills in 1934 soon after completing high school. For the past several years he has been office manager at Print Works. Mr. Brandt joined Cone as a second hand in the color shop in 1946 and was promoted to overseer in 1948. He became assistant superintendent of the plant in 1952. A native of Greensboro, Mr. Brandt graduated from North Carolina State College in 1942. . . . Other promotions at the plant include: Roy Way, assistant superintendent; Ben Thornburg, assistant superintendent, first shift; Carl E. Sheffield, assistant superintendent, second shift; Douglas Haislip, assistant superintendent, third shift. . . . Jack Stanley has been named overseer of production and C. Richard Eichhorn overseer of the office. . . . Percival C. Gregory Jr., general manager of Union

Bleachery, Greenville, S C., which was acquired by Cone in April 1952, has been elected to the board of directors of the First National Bank of Greenville. Mr. Gregory was named a vice-president of Cone Finishing Co. in December 1952. He has been associated with Union Bleachery since 1933, serving as assistant general manager from 1945 to 1948, when he became manager. . . . In a promotion at Cone's Revolution Division, Sidney Allen Jr. has been named assistant superintendent of the division. He succeeds J. Lennie Ritter, who was promoted to superintendent of the division Dec. 31 following the retirement of Coley Phillips. Mr. Allen has been with Cone Mills since 1951. Since last August he has been head of time study for the White Oak Plant. He is a graduate of North Carolina State College.

Carl Wood has been named sales engineer for General Strapping Corp. in the states of North Carolina, South Carolina and Georgia. Mr. Wood will make his headquarters in Hartsville, S. C.

Thomas R. Williams, chief methods and standards engineer for the Ware Shoals, S. C., plant of Riegel Textile Corp., has been promoted to corporate director of methods and standards for the entire company. Mr. Williams, a graduate of Georgia Tech, joined Riegel in 1954. Prior to that he was with Dan River Mills, Danville, Va. He will continue to make his headquarters in Ware Shoals. . . . Named chief methods and standards engineer of the Ware Shoals plant to succeed Mr. Williams was Richard W. Malone. Also a graduate of Georgia Tech, Mr. Malone was formerly with the Deering, Milliken organization where he was engineer in charge of cost reduction. Prior to that he was with Dan River Mills and Standard-Coosa-Thatcher Co., Chattanooga, Tenn. He is a native of Chattanooga.

Saul F. Dribben, former board chairman and president of Cone Mills Inc., and only living member of the original 1918 board of directors of The Association of Cotton Textile Merchants of New York, was the guest of honor last month at the association's annual dinner meeting in New York City. Leaders in the New York textile markets and from textile mills North and South paid special tribute to Mr. Dribben's long career in textiles, which started when he joined the old Cone Export & Commission Co. on Dec. 25, 1894, and terminated with his retirement from its successor firm at the end of last year. In token of his long services with the association, Mr. Dribben was presented with a silver tray engraved with the signatures of all living members of the association board with whom he had served.

William K. Wilder has been named manager of Goodyear Fabric Mills of the Goodyear Tire & Rubber Co. and will take over administration and co-ordination of production in the company's mills at Cartersville, Rockmart and Cedartown, Ga., and the mill at Decatur, Ala. Mr. Wilder succeeds S. A. Steere, who retired Jan. 31 as vice-president of Goodyear Fabric Mills. Mr. Steere, an All-American football player at Brown University, joined Goodyear in 1919 as superintendent of fabric mills at Los Angeles. He was appointed manager of the company's fabric division in 1924. . . . I. A. McDaniel, assistant treasurer of the company's three plants in Georgia since 1926, retired Feb. 1. A native of Ohio, Mr. McDaniel joined Goodyear in Akron, Ohio, in 1913. Prior to being transferred to Cedartown as assistant treasurer in 1926, he was associated with the company's mill at Killingly, Conn.

Ward H. Bushee

Ward H. Bushee has been appointed sales representative in the Georgia-Alabama territory for R. E. L. Holt Jr., Southern sales representative for the Dixon Corp. Mr. Bushee, who will handle Dixon saddle guide products for drafting changeovers for long-draft spinning, was formerly with J. P. Stevens & Co. Prior to that he was associated with the Roberts Co., American Thread Co., American Yarn and Processing Co. and Bay State Thread Works. He will make his headquarters in Greenville, S. C.

James C. Carter, former New York packaging films representative for The Goodyear Tire & Rubber Co., has been assigned to Charlotte, N. C., in a similar capacity. Mr. Carter will provide technical service for textile customers utilizing Goodyear packaging films in the Charlotte area. He joined Goodyear in 1953 following graduation from Mt. Union College, Alliance, Ohio, where he earned a bachelor of arts degree. In 1954, he was transferred to the firm's

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staff training squadron and the following year was assigned to the Akron, Ohio, packaging films sales staff. He was named to his New York post in 1956.

Robert A. Gilliam

Robert A. Gilliam has been named executive vice-president of Burlington Mills, the largest member company of Burlington Industries. A graduate of North Carolina State College, Mr. Gilliam has been with Burlington since 1931. He joined the company at that time as a dyehouse worker in Burlington, N. C., and rose through a succession of assignments to the post of plant superintendent in 1940, division manager in 1945 and area manufacturing executive in 1953. He has been a vice-president of Burlington Mills since 1949. In addition to his new post, he will continue his general co-ordinating responsibilities in connection with Burlington's Cramerton and Mooresville, N. C., operations. . . . W. C. (Ben) Harris has resigned as senior vice-president and a director of Burlington Industries. Mr. Harris has been on a leave of absence since last November. He joined Burlington as a vice-president in a sales co-ordinating capacity in February 1955. He was named president of Mooresville (N. C.) Mills in May 1955, and was elected to the board of Burlington Industries in June 1955. Prior to joining Burlington he was vice-president in charge of merchandising and sales for Dan River Mills. Before that he was a director and vice-president in charge of merchandising and sales for Mooresville Mills for 11 years. He will continue with Burlington in a consulting capacity.

W. H. Bromley and E. H. Finsilver have been appointed to the newly-created posts of general sales manager and assistant general sales manager, respectively, for Shawinigan Resins Corp., Springfield, Mass. Mr. Bromley, director of development for the company since 1950, joined the firm in 1943 as a research chemist. Mr. Finsilver, who has been assistant district sales manager in the firm's New York office, transferred from Shawinigan Products Corp. when Shawinigan Resins organized its own sales staff in 1955. He is a native of New York City.

Ben T. Comer Jr., president of Comer Machinery Co., Atlanta, has been elected president and treasurer of William A. Barrell Co. which operates Lincoln Mills of Alabama in Huntsville. Sallo M. Kahn has been named executive vice-president. Elected vice-presidents were Rolliston W. Linscott Jr. and Edward Blundell. Mr. Kahn has been associated with the Barrell organization 48 years. Mr. Linscott, grandson of the founder of the company, is president of Greer (S. C.) Mfg. Co., and Linway Mfg. Co., Palmetto, S. C., and Tennille, Ga. Mr. Blundell has been sales manager. . . . Retiring March 1 as vice-president and head of the converting department is Edward J. Reilly. Mr. Reilly, who will continue as a consultant, will be succeeded by Ben Anderson, who has been acting as assistant to both Mr. Reilly and Mr. Blundell . . . J. W. O'Neal, general manager and secretary of Lincoln Mills at Huntsville, has been named a member of the board. John M. Barrell and William A. Barrell Jr. have resigned as treasurer and secretary, respectively, of William A. Barrell Co. The changes were brought about by the acquisition of the Barrell Co. by Messrs. Comer, Kahn and Linscott.

Dewey H. Nelson, formerly assistant to the sales manager, has been promoted to sales manager of Becco Chemical Division, Food Machinery and Chemical Corp., Buffalo, N. Y. He succeeds the late John F. Shea, who was vice-president in charge of sales at the time of his death on Nov. 26, 1956. Mr. Nelson, a graduate of M.I.T., joined Becco in October 1947, working first in the company's special products department, and later in the research department. In 1951, he was transferred to the sales department, and became Midwest district manager in Chicago in April 1953, from where he returned to Becco's Buffalo headquarters in August 1956, as assistant to the sales manager. . . . Bruce J. Bishop, a graduate of Clemson College, has joined the Becco sales organization and is currently assigned to the Southern territory office in Charlotte, N. C.

H. M. Jackson

Hughey M. Jackson has been appointed manager of the International Shoe Co. cotton mill in Malvern, Ark. He succeeds Harold D. Lockman, who is retiring but will remain in an advisory capacity. Mr. Jackson was formerly sales and service representative for Whitinsville Spinning Ring Co., traveling Georgia, Alabama, Tennessee, Mississippi and South Carolina. A graduate of Georgia Tech, he was for 13 years superintendent of Pacolet Mfg. Co., Mill No. 4, New Holland, Ga. Prior to that he had been night superintendent of the Fulton Bag & Cotton Mills, Atlanta, Ga. He is a past chairman of the Georgia Textile Operating Executives and a former president of the Jefferson, Ga., Rotary Club.

Edwin O. Young has been assigned to the Charlotte, N. C., district of Allis-Chalmers Industries Group as a sales representative. An electrical engineering graduate of North Carolina State College, Mr. Young has been engaged as a sales engineer in recent years. Prior to that he was associated with the Electric Motor & Repair Co., Raleigh, N. C., in an executive capacity for six years. He is a member of the North Carolina Society of Engineers.

William K. Hancock, formerly with Dan River Mills, Danville, Va., has joined Callaway Mills Co., LaGrange, Ga., as an industrial engineer in the engineering department of the research and development division. Mr. Hancock is a graduate of Georgia Tech. . . . James O. Hammond has been named plant engineer for Callaway's Unity Spinning Plant. Prior to joining Callaway, he was overseer of carding at Canton (Ga.) Cotton Mills. Before that he was with Goodyear Clearwater Mills, Cedartown, Ga. Mr. Hammond is also a graduate of Georgia Tech. . . . B. P. Albright, manager of Unity Spinning Plant, was recently given the Silver Beaver Award by the LaGrange Boy Scout council. The award is the highest a local scout group can give.

John A. McCarn has been transferred from Stowe Spinning Co. to Imperial Yarn Mills as superintendent. Both plants are in Belmont, N. C.

Vincent J. Calise has been named general manager of Graver Water Conditioning Co. of New York City, manufacturer of water treatment and waste treating equipment.

Raymond F. Pollard has joined the Warwick Chemical Division of Sun Chemical Corp. as textile sales manager. Mr. Pollard is thoroughly familiar with all phases of finishing and dyeing. Employed at Cranston (R. I.) Print Works for many years, he has also served other textile firms in important positions. He entered the textile industry as an engraver's apprentice, advanced to converting work and then began a sales career. Permanent headquarters for Mr. Pollard are located at the Sun Chemical Building in Long Island City, N. Y., although much of his time will be spent with district sales representatives.

Promotion of three executives of William Iselin & Co. Inc. has been announced. Richard S. Perry, a vice-president, was named a director of the company. He has been with the firm since 1941 and is a contact officer. John L. Cole, who joined Iselin 18 years ago, was promoted from assistant vice-president to vice-president. He is an executive in the firm's new business department, as well as a contact officer. Named assistant vice-president was Thomas E. Fitzgerald of Carrollton, Ga., new business representative in North Carolina, Georgia, Alabama, Florida, Mississippi and parts of Tennessee and South Carolina. He has been with Iselin since 1954.

John G. Sibley has been named district sales manager in Charlotte, N. C., for Jefferson Chemical Co. A graduate of the University of North Carolina, Mr. Sibley joined Jefferson in 1953 as Charlotte resident salesman.

R. S. Ogletree Jr.

Robert S. Ogletree Jr. has been named sales representative in Georgia, Alabama and eastern Tennessee for the Belton C. Plowden Co., Southern agent for National Vulcanized Fibre Co. Mr. Ogletree, a graduate of Presbyterian College, will offer National's line of basic engineering materials. The line includes National vulcanized fibre, Phenolite laminated plastic and National nylon.

Ray E. Nelson, who for the past 17 years has been connected with the Oscar Heineman Corp., the past year as vice-president in charge of production and sales, has joined Joy Throwing Co. of Hartsville, S. C., as assistant to the president and general manager.

Dr. Milton M. Platt of Newton, Mass., vice-president and associate director of Fabric Research Laboratories Inc., Dedham, Mass., has been appointed a member of the committee on textile fabrics of the National Academy of Sciences—National Research Council Advisory Board on Quartermaster Research and Development.

Lee Pickens

Lee Pickens of Charlotte, N. C., has been appointed exclusive representative in the U. S. for Chatham Mfg. Co., Elkin, N. C., in the sale of Chatham stock-dyed and natural Orlon, Acrilan and other synthetic fibers, spun 100 per cent and in blends. Mr. Pickens will continue as Southern sales representative of Amicale Yarns Inc. and Woonsocket Spinning Co. in the sale of cashmere, fur blends, Shetland yarn and lambs' wool, and will service Southern spinning mills with raw materials, including specialty fibers manufactured by other Amicale subsidiaries. Mr. Pickens also represents Ramseur Worsted Mills in the South in the sale of Turbo-processed Orlon, tow-dyed and natural, and slub-dyed natural and worsted yarns.

Stirling Turner has been promoted to the newly-created post of assistant to the plant manager of The Chemstrand Corp. nylon plant at Pensacola, Fla. Since joining Chemstrand in 1953, Mr. Turner has been purchasing supervisor at the Pensacola plant. He formerly was with the General Motors Corp. and the U. S. Government.

OBITUARIES

William D. Anderson, 83, chairman emeritus of the board of Bibb Mfg. Co., Macon, Ga., died Jan. 20. Mr. Anderson had been identified with the textile industry of Georgia for many years, having joined Bibb in 1898. He was named president of the company in 1920, holding the post until his son was named to the office in 1936. The sudden death of his son put him back in as president and he retained the post until 1947. At that time he was named chairman of the board, a post he held until about three years ago when he was named chairman emeritus. He was a former president of the old American Cotton Manufacturers Association, a life member of the Cotton Manufacturers Association of Georgia, and a member of the board and executive committee of the Cotton Textile Institute. He was a member of the Macon Rotary Club and an active director of the Citizens and Southern Bank. Surviving are his widow and a daughter.

Richard Thurmond Chatham, 60, former president and board chairman of Chatham Mfg Co., Elkin, N. C., died Feb. 5 at Durham, N. C., of a heart attack. Born in Elkin in 1896, he was the son of Hugh Gwyn Chatham, founder of Chatham Mfg. Co. He attended the University of North Carolina and Yale University, leaving Yale to enter service in World War I. He also served in the Pacific during World War II, and later in the Bureau of Ordnance in Washington, D. C. From 1948-56 he was a member of the U. S. House of Representatives. Survivors include his widow and three sons—Hugh Gwyn III, Richard Thurston and Walter Firestone Chatham.

William Reynolds Creadick, 60, who retired in June 1955 as assistant general manager in charge of sales of the textile fibers department of the Du Pont Co., Wilmington, Del., died last month in Wilmington. Mr. Creadick, who retired because of a heart condition, joined Du Pont in 1915 as a payroll clerk. He is survived by his widow, two daughters and two sons.

Charles M. Geer Sr., retired executive of Callaway Mills Co., LaGrange, Ga., died Feb. 1 in LaGrange following a long illness. Survivors include his widow, a daughter and a son.

Arthur M. Gorham, 58, president of the Wool Associates of the New York Cotton Exchange Inc., died last month at his home in Wellesley, Mass. Mr. Gorham had been a member of the New York Cotton Exchange and the Wool Exchange for the past 20 years, and a member of their boards of directors for the last 14 years. He was also founder of Greene & Gorham Inc., wool brokers of Boston, and the firm, Gorhams, of New York. Surviving are his widow and four children.

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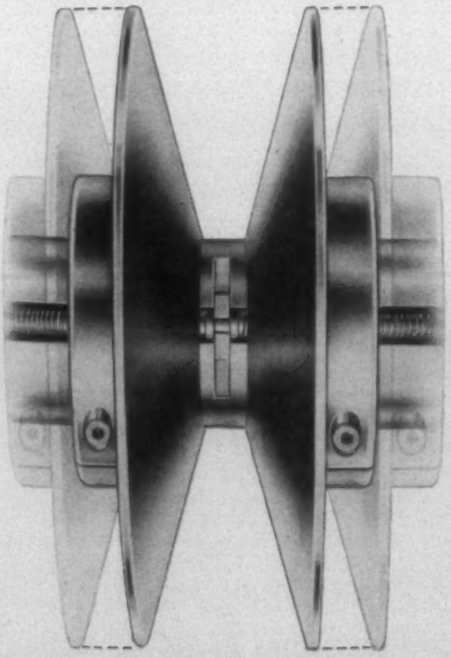

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MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

EAST POINT, GA.—Gate City Mills has resumed operations here after being idle several years. According to Milton C. Scott, who is in charge of production, new equipment has been installed throughout the mill. The picker room has been modernized and Whitin long draft frames have been installed. Operations are being resumed on a one-shift basis, with the plant making a range of yarns from 3s to 18s for the knitting and weaving trades. In resuming operations, owners of the mill, D. T. Manget, Newman, Ga., cotton merchant, and W. N. Banks, president of Grantville Mills, Grantville, Ga., have associated with them J. J. Scott, president of Scottdale Mills, Scottdale, Ga., and Milton C. Scott, secretary and treasurer of Georgia Duck & Cordage Mill, Scottdale. Gate City Mills will be integrated to a certain extent with Georgia Duck & Cordage Mill in that some of the yarn spun at Gate City will be used by Georgia Duck & Cordage in weaving cotton specialties and numbered duck.

SHELBY, N. C.—Sackville Mills Co., of Wallingford, Pa., has acquired the 70,000-square-foot plant formerly occupied here by Consolidated Textile Co. According to Sackville officials, the plant will be set up to produce hair canvas interlining. The firm plans to liquidate its interlining looms now in operation at National Haircloth Co., Philadelphia, Pa., continuing to operate haircloth looms at that location. The Shelby plant will perform all operations except finishing. It is expected to be in operation within a month.

LYMAN, S. C.—M. Lowenstein & Sons Inc. has set up an independent research and development laboratory here. The lab is in a separate building and is fully staffed and in operation. In the past the company has had research facilities both at Rock Hill, S. C., and Lyman, a spokesman for the firm pointed out, but in view of the importance of research, it has set up this independent activity.

BROOKFORD, N. C.—Production has stopped completely at Brookford Mills, a subsidiary of United Merchants & Manufacturers Inc., here. Machinery is being removed from the mill buildings at a rapid pace, with everything slated to go. A value of $400,000 has been placed on the mill buildings and other property, and civic and industry leaders in Hickory, two miles away, are hopeful that a replacement industry can be found. The company announced last Dec. 4 that the mills would close because profitable operation was no longer possible.

LEAKSVILLE, N. C.—Fieldcrest Mills is nearing completion of an extensive program of machinery relocation at its Karastan Rug Mill here. The purpose of the program is to gain space for new equipment being installed and to prepare the mill for greater capacity and increased efficiency. New equipment already in operation or in the process of erection includes an extractor and skein dryer, 42 Foster winder spindles, an additional creel and reel for the pile yarn beaming unit, a ground warp beamer, and a carpet backsizing and drying unit. Two additional needle looms are on order with delivery expected this Summer. Fieldcrest began the relocation project nearly two years ago. Since that time, every piece of machinery, except the washer equipment, the dye tubs and a few looms, has been relocated. The entire finishing and carving departments were moved to the first floor of the main mill and placed adjacent to the packing and shipping department. The former finishing room is being used for winding, twisting and skein yarn storage. The burling department was moved to the former winding area and the plain goods shearing and the inspection operations which were formerly in the weave room have been grouped with burling. The setting department was moved to the former burling and carving areas and the Foster winders and the yarn beam unit occupy the former setting space. In the weaving department, looms were rearranged to provide space for a new ground warp beamer in the southern corner of the room. The area formerly occupied by the plain goods shearer and the inspection tables is being readied for the two additional needle looms. Building alterations were made in a portion of the former skein yarn storage room where the new carpet backsizing and dryer unit has been installed. Columns were removed, the roof beams reinforced and the length of the room extended to accommodate the dryer installation. The passageway between the main mill and the washer building was widened by 25 feet to make room for the new skein yarn dryer which has been installed and is now in operation.

DADEVILLE, ALA.—Officials of Dan River Mills, Danville, Va., were honored here Saturday, Jan. 26 in a day-long celebration planned by local citizens following the acquisition by Dan River of Alabama Mills. The acquisition included the Dadeville corduroy plant which has been in operation here since 1928. Special guests at the celebration were W. J. Erwin, president of Dan River, and National Legion Commander W. C. (Dan) Daniel, also an official of Dan River. The day's program included a parade, barbecue luncheon, addresses by Mr. Erwin and Commander Daniel, a reception and press conference, a banquet and an informal get-together of the area's textile officials.

WILLIAMSTON, S. C.—Mount Vernon Mills Inc., with headquarters in Baltimore, Md., has acquired Williamston Cotton Mills Inc., here, a subsidiary of Hesslein & Co., New York City. Williamston, which produces print cloth, is equipped with some 41,124 spindles and 1,100 looms. Mount Vernon described the acquisition as another step in its continuing diversification program. The company recently acquired Newnan (Ga.) Cotton Mills. Prior to that the company purchased Arcade Cotton Mills, Rock Hill, S. C.

CALHOUN FALLS, S. C.—Construction has begun here on a new plant for Bigelow-Sanford Carpet Co., the nation's second largest carpet manufacturer. The plant, being built by Daniel Construction Co. of Greenville, S. C., is scheduled to produce carpet wool and yarn for use in Bigelow-Sanford carpets. Operation of the plant, which will be known as Rocky River Mills, will begin during the second half of 1957, with peak operations requiring some 700 employees. Bigelow-Sanford has two other South Carolina plants, at Belton and Landrum.

BURNSVILLE, N. C.—Firth Carpet Co. has budgeted $4 million for new production facilities at the former Duplan Corp. plant here that Firth has leased on a long term basis. The plant will be used to provide Firth with additional facilities to supplement present sources. Operations are expected to get under way by the middle of 1957.

HUNTSVILLE, ALA.—Lincoln Mills of Alabama, a unit of William L. Barrell Co. Inc., will cease operations here about April 1 due to deteriorating market conditions. Comer Machinery Co. of Atlanta has been engaged as exclusive agents to handle the sale of machinery and properties of the firm. One of the oldest textile operations in Alabama, the plant has been operating under the name Lincoln since 1918. Prior to that it was known as Abingdon Mills, and even earlier was the Madison Spinning Mill. The plant employs some 800 persons, and has a production capacity of about 350,000 pounds a week. It manufactures ducks, drills, twills, osnaburgs and yarns. Equipment to be disposed of includes some 45,228 spindles and 742 looms.

ROANOKE RAPIDS, N. C.—Major production changes are under way at Roanoke Mills Co. and Rosemary Mfg. Co. here, divisions of J. P. Stevens & Co. Roanoke Mills No. 2 Plant will be converted to an all-ticking mill and production of furniture fabrics will be transferred to Rosemary's No. 2 weave room. The transfer includes moving the dobby box looms in

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Roanoke and consolidating them with similar looms at Rosemary for the production of decorative fabrics. This will result in a total of 178 looms engaged in the production of decorative fabrics. More than a 100 64-inch dobby looms in Rosemary No. 2 will remain and additional wide and narrow Draper looms will be installed to provide a total of 452 Draper looms on wide and narrow fancy ticking. Winders and twisters now used in Roanoke No. 2 for making fancy yarns for decorative fabrics will be transferred to Rosemary and consolidated with equipment in Rosemary's No. 5 plant. Present roving frames at Roanoke No. 2 will be abandoned in order to install modern, reconditioned, large-package roving frames, similar to changes that have been made in other Stevens plants. Obsolete filling spinning at Roanoke No. 2 will be abandoned and replaced by modern, reconditioned spinning. Obsolete warp spinning at Roanoke No. 2 will also be reconditioned and modernized.

LYNCHBURG, VA.—Bates Mfg. Co. has officially taken over the Lynchburg plant of Consolidated Textile Co. The plant will be known as the Lynchburg Division of Bates Industries, and the division will be under the supervision of H. V. King, general manager of Bates Mfg. Carl Johnson, formerly with J. P. Stevens & Co., will act as plant manager. P. S. Leach, who has been manager of the plant, will act as administrative assistant to Mr. Johnson. Lynchburg fabrics will be used in Bates' expanding piece goods division.

CHESNEE, S. C.—Reeves Bros. Inc. has begun sale of some 120 homes to employees of its Chesnee Division here. Sales are being handled by T. B. Thackston, Ward & Covington, local realtor.

ANDERSON, S. C.—Twenty-nine supervisory employees of Abney Mills here last month received certificates at graduation exercises for having completed the company-sponsored Dale Carnegie course in effective speaking and human relations. This brings the number of Abney employees who have completed the course to a total of 140. The courses consist of weekly sessions for a period of 14 weeks.

FORSYTH, GA.—The plant formerly operated here by Burlington Mills has been sold and converted to a cotton mill waste warehouse. Operated by the Ensign family of Forsyth for many years, the mill was sold some 12 years ago to Susquebana Mills. Later the property was transferred to Brighton Mills, and finally along with all the Brighton interests it became the property of Burlington Mills. Burlington discontinued operations in the plant in September of 1953.

ATHENS, GA.—The Narrow Fabric Co., Reading, Pa., has announced the purchase of all plant facilities, machinery and equipment of the Athens Elastic & Braid Co. Narrow Fabric will operate the newly-acquired Athens plant as its Southern Division and will use these facilities to increase its production of braided elastics. The Athens plant will be under the direction of Robert H. Maupin Jr., assisted by his brother, James A. Maupin, the former principals of the Athens Elastic & Braid Co.

Narrow Fabric produces all types of woven, braided, knitted and lace narrow fabrics in its main plant at Reading, Pa. The Athens plant will specialize exclusively in the manufacture of braided elastics. The present sales organization of Narrow Fabric will take over distribution of the products of the Georgia plant. The output of the Athens plant will be given complete national distribution as well as extensive export representation. Addition of the Southern manufacturing unit will have no effect on employment at the main Reading plant of Narrow Fabric. The additional capacity is said to be urgently needed to service the company's many Southern customers and to facilitate deliveries to them at the lowest possible transportation costs.

TIFTON, GA.—Peerless Woolen Mills, Rossville, Ga., a unit of Burlington Industries, has completed negotiations for the purchase of the former Amerotron Corp., plant here. According to J. L. Hutcheson Jr., Peerless board chairman, operations will be started as soon as possible. Textron Inc. announced last December that negotiations for sale of the plant were under way.

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James H. Hunter Named A.T.M.A. Head

James H. Hunter, president of James Hunter Machine Co., North Adams, Mass., was elected president of the American Textile Machinery Association at its 24th annual meeting held Feb. 6 in Boston. Mr. Hunter succeeds W. Frank Lowell, senior vice-president of Saco-Lowell Shops, who remains on the board of directors. Newly elected as vice-president is William K. Child, vice-president of the Draper Corp., Hopedale, Mass. Samuel F. Rockwell, president-treasurer of Davis & Furber Machine Co., was re-elected as treasurer for the 25th consecutive term. Mr. Rockwell has held this office without a break since the association was founded.

James H. Hunter

W. Frank Lowell

In addition to the officers, other board members elected are Thomas L. Stilwell, sales manager, textile machinery division, The Warner & Swasey Co., Cleveland, Ohio; Roy G. Ross, vice-president, Barber-Colman Co., Rockford, Ill.; Mr. Lowell; J. Ebert Butterworth, president, H. W. Butterworth & Sons Co., Bethayres, Pa.; J. Hugh Bolton, president, Whitin Machine Works, Whitinsville, Mass.; Frederic W. Howe Jr., president, Crompton & Knowles Corp., Worcester, Mass.; Robert Leeson, president, Universal Winding Co., Providence, R. I.; P. Kay Schwartz, president, Proctor & Schwartz Inc., Philadelphia. Richard A. Hunter, vice-president of James Hunter Machine Co., will serve as assistant to the president of A.T.M.A. By action of the board, Mrs. Mildred B. Andrews will continue to serve as executive secretary.

James H. Hunter is the fifth generation James to head the company founded by his great-great grandfather in 1847. His entire business life has been devoted to that company, but in recent years he has been named president also of the Thomas Leyland Machinery Co., Readville, Mass., and of the W. D. Dodenhoff Co. Inc., Greenville, S. C., both wholly-owned subsidiaries of the James Hunter Machine Co. He has long been active in affairs of the A.T.M.A., having served on the board of directors for several terms and for the past two years as vice-president. He was a member, also, of the committee in charge of planning and direction of the American Textile Machinery Exhibition of 1954.

William K. Child, the association's new vice-president, has been vice-president and sales manager of Draper Corp. since 1951. A native of Greenwood, S. C., he became associated with Draper in 1936. During World War II he served as consultant, War Department, in the Textile Procurement Section, Office of the Quartermaster General, with leave of absence from Draper. In 1949 he was appointed Southern sales representative of Draper, and was elected a director in 1950.

W. Frank Lowell, the retiring president of the association, told the annual meeting that machine builders face the coming year with cautious optimism. He said that only through planned modernization programs that continue year in and year out can textile mills meet domestic and global competition and that realization on the part of mill executives will be the measure of the future business of machine builders. He pointed out that American textile machinery manufacturers conduct research and development programs that result in lower production costs for textile mills through machine improvement, efficiency and labor saving devices. These developments are alerting the textile mill executive to the opportunities ahead of them by basing capital expenditures upon "reduction in manufacturing cost and upgrading of quality through modernization" instead of the old base of "return on investment."

He reviewed activities of the association over the past year placing emphasis on general services of the organization to its membership. He said A.T.M.A. proceeds in a conservative manner in all planning, but had been recognized for industrial leadership and interest in co-ordination of research and textile education when the board of trustees of Lowell Technological Institute set up a scholarship named in honor of A.T.M.A.

Attendance Good At A.C.M.I. Meetings

Good attendance marked the series of area meetings of textile mill executives concluded recently under sponsorship of the American Cotton Manufacturers Institute. The last of the 11 meetings in the series was at Spartanburg the night of Feb. 8. That same week meetings had been held at Greensboro, Charlotte and Gastonia, N. C., Augusta, Ga., and Greenville, S. C. Previously, meetings were held at Chattanooga, Tenn., Birmingham, Ala., Columbus, Macon and Atlanta, Ga.

From 30 to 65 mill men attended each of the meetings, which was presided over by a local textile executive. Each meeting was attended by one or more of the three elective officials of A.C.M.I.: F. E. Grier of Greenwood, S. C., president; L. G. Hardman Jr., of Commerce, Ga., first vice-president, and Halbert M. Jones of Laurinburg, N. C., second vice-president. Robert C. Jackson of Washington, D. C., executive vice-president, and F. S. Love of Charlotte, N. C., secretary-treasurer, attended most of the meetings.

The plan for control of Japanese imports received considerable attention at the meetings, along with other matters of interest to the industry. This was the third consecutive year A.C.M.I. has sponsored the meetings.

Carded Yarn Assn. Evaluates Import Plan

According to reports, the carded yarn industry appears to be ready to shake free of the doldrums blamed on uncontrolled low-wage imports from Japan. Industry leaders are pinning their hopes on the recently announced import control plan worked out in conferences between the U. S. and Japanese Governments. M. Y. Cooper, president of the Carded Yarn Association, reports that the feeling among carded yarn manufacturers seemed to be that the negotiated quotas would free the industry from further serious harm.

Mr. Cooper, vice-president and treasurer of Harriet Cotton Mills and Henderson Cotton Mills, Henderson, N. C., also had this to say: "Although this commitment is a five-year plan dealing primarily with woven goods to the extent of a maximum of 235 million square yards of cotton textiles per year, it is our understanding that anything and everything made from cotton is included. The over-all limit is subdivided into five major groups, embracing various descriptions and end use goods. Group V, entitled 'Miscellaneous Cotton Textiles, carries a limit of nine million square yards per year and is the category within which all cotton yarns would fall. Since there is included a provision that conversion to pounds may be effected by considering 4.6 square yards per pound, the nine million square yards would be equal to approximately 1,956,000 pounds. However, the commitment goes on to say, with regard to Group V: 'Within the over-all total for Group V are included, among others, such items as cotton floor covering, fish nets and netting, cotton threads, etc.'

"It would appear, therefore, that there is no present serious problem with respect to cotton yarns. If this arrangement is properly administered, it should restore some confidence in our industry which has been sadly lacking during the past few years."

Ernest Rees Jr., vice-president and general manager of The Elk Cotton Mills, Fayetteville, Tenn., and a member of the Carded Yarn Association's board of directors, said he was assured that the Group V quota included cotton thread or yarn, carded or combed, greige or mercerized or products made therefrom such as narrow fabric like zipper tape and shoe laces. "We have been told," he said, "that the manufacturers of shoe laces have been hurt badly by imports of shoe laces made of combed yarn selling at half the price of U. S. shoe laces made of carded yarn." But under the formula, he added, the quota would be about two million pounds yearly of products made from cotton thread or yarn, carded or combed, greige or mercerized. "This being the case," Mr. Rees added, "it is certainly good news for the yarn and thread industry."

J. Craig Smith, president of Avondale Mills, Sylacauga, Ala., and a member of the association's board of directors, said the industry "would have much preferred definite legal quotas." He added: "We have been assured that our government and the Japanese Government would keep careful records of performance in respect to the arrangement that was announced on Jan. 16. If properly administered, I believe the arrangement is one that our industry can live with. I believe it will permit us to go forward with plans for modernization and will permit us to intelligently promote our products. I feel that the 'shooting' has stopped at least for five years, and that during this extended armistice surely a permanent solution can be achieved."

Clemson Plays Host To T.E.A.M. Day

Clemson College played host February 12 to a large gathering of mill men, textile machinery manufacturers and textile school officials in recognition of the third "Textile Education and Machinery Day" for the American Textile Machinery Association. Visitors for the event were taken on a tour of the various facilities Clemson has to offer the textile industry, and they were briefed on the

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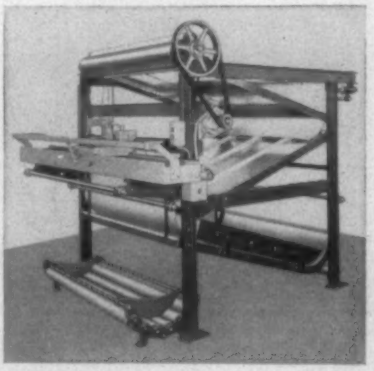

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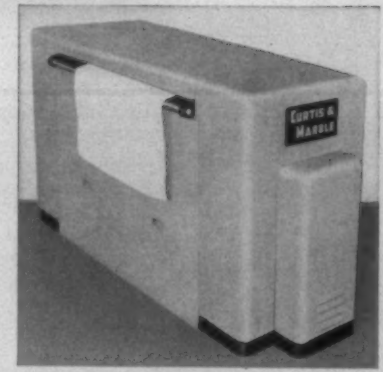

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organization and goals of the Clemson School of Textiles.

Featured speaker at the all-day event was F. E. Grier, president of the American Cotton Manufacturers Institute. Mr. Grier, who is also president of Abney Mills and Erwin Mills, addressed the banquet session and told the gathering, "I view the coming year with more optimism than I have felt in a long time." Then he spelled out some of the reasons for this optimism: "The capacity of our plants has been sharply reduced through scrapped spindles; the population of the country is rising rapidly; we are already operating at close to capacity; and our government has at last taken action to help us with our problem of Japanese competition."

Mr. Grier took cognizance of the contributions of the other groups to textile manufacturing and said the help of the textile schools in providing trained personnel and the help of the textile machinery manufacturers would be needed, ". . . because without modern, efficient machinery the fight is lost."

"I know that at times you must have felt that the mills were terribly backward because they would not buy new machinery, but I feel sure you must also have realized that, with textile earnings at the low levels of recent years, many mills have found it impossible to modernize. With the sort of competition we are up against today, it is economic suicide for a textile mill to fail to keep its plant and equipment in top-flight condition." Referring to the recently announced plan worked out between the American and Japanese Governments for control of textile imports from Japan, Mr. Grier said the "important factor about the Japanese commitment is that it spreads these imports over a broader base and prevents dangerous concentrations in certain fabrics and lines. Since similar limitations are placed on Japanese-made garments, we have every reason to believe that our government has now taken a long step in the right direction, and that we may have seen the historic reversal of a free trade program that had been bleeding us for more than 20 years.

"While we do not feel that this is the best arrangement that could have been worked out, we do feel that, if properly policed, it can end the uncertainty that had been hanging over our industry."

James H. Hunter of North Adams, Mass., new president of the American Textile Machinery Manufacturers Association, spoke briefly. Dr. R. F. Poole, president of Clemson host to the gathering, presided. The program was arranged by Dr. Hugh M. Brown, dean of the Clemson Textile School.

T.R.I. Annual Meeting—March 14-15

A highly informative symposium on acrylic, vinyl and dinitrile fibers will highlight the 27th annual meeting of the Textile Research Institute of Princeton, N. J., at the Hotel Commodore, New York City, March 14-15. Program for the two-day meeting will be as follows:

The Thursday morning and afternoon sessions will have as chairman, J. B. Goldberg, consultant, who will also act as moderator for the question and answer period. Opening the morning will be a presentation on "Properties and Uses of Acrilan" by Frank J. Soday, vice-president, research and development, The Chemstrand Corp., Decatur, Ala. C. W. Bendigo, technical director, American Cyanamid Co., will give a paper on Creslan. The morning proceedings will close with a talk by Richard D. Smith, B. F. Goodrich Chemical Co., Avon Lake, Ohio, on Darlan.

At the luncheon, Sydney M. Cone Jr., T.R.I. president and vice-president of Cone Mills Corp., Greensboro, N. C., will speak on "The State of the Institute." Talks on the fibers, their properties and applications will continue on Thursday afternoon. A paper on Dynel will be delivered by J. M. Swalm, Carbide & Carbon Chemical Co., South Charleston, W. Va. W. W. Heckert, of the textile fibers department, the Du Pont Co., Wilmington, Del., is to give a presentation on Orlon. Data on Verel will be outlined by Harry W. Coover, Tennessee Eastman Co., Kingsport, Tenn., while G. W. Stanton, director of Research, The Dow Chemical Co., Pittsburg, Calif., will cover Zefran.

The program for Friday is: "T.R.I. Research in 1956," by Dr. John H. Dillon, institute director. A brief discussion on the research findings reported will follow. Other papers include: "Cotton Merchandising Changes to Conform with Modern Mill Requirements," by Earl E. Berkley, director, fiber and spinning laboratory, Anderson, Clayton & Co., Houston, Tex.; "An Appraisal of Shrink-Resistant Treatments for Wool" by Arnold M. Sookne, assistant director, Harris Research Laboratories, Washington, D. C.; "New Fibers in Tire Cord" by Gerald Mallory, head of cords and fabrics section, research division, Goodyear Tire & Rubber Co., Akron, Ohio.

Chairman of the Friday morning program will be W. Hale Charch, director, pioneering research, the Du Pont Co., Wilmington, Del., who is also chairman of T.R.I.'s general research advisory committee. A glimpse into "Fiber Forming Materials of the Future" will be given by the guest luncheon speaker, Professor Herman Mark, of the Polytechnic Institute of Brooklyn. New T.R.I. officers will also be introduced at the luncheon.

Textile testing apparatus, instrumentation and fiber exhibits will again be set up in the West Ballroom, adjacent to the meeting hall. Displays will be open to the general public on both days from 9:00 a.m. until 5:00 p.m. The annual meeting is open to all interested in textile research and development. Registration fee for the meeting is $8.00 and lunchon tickets will be available for $5.00 on each day. Advance reservations may be made by writing to the institutes's secretary, P. O. Box 625, Princeton, N. J.

Symposium on 'Minimum Care' Fabrics

An outstanding group of industry leaders will share the speaker's rostrum at the symposium on "minimum care fabrics" sponsored by the Textile Section of the New York Board of Trade on Feb. 28 at the Sherator Astor Hotel in New York City, according to an announcement by Cameron A. Baker, chairman of the event.

Among those who will address the meeting are Sydney Cone, president, Textile Research Institute, and vice-president, Cone Mills Corp., speaking on "The Engineering Aspect of Using Natural Fibers in the Minimum Care Fabrics"; Percy J. Fynn, director, research and textile laboratory, J. C. Penny Co. Inc., speaking on "Garment Manufacturers' Aspect of the Minimum Care Fabric"; Dr. Paul Stamm, director of research, Burlington Industries, speaking on "Finishing Fabrics of Natural Fibers for Minimum Care"; William P. Wright Jr., vice-president, J. Walter Thompson Co., speaking on "Merchandising, Sales and Advertising Minimum Care Fabrics"; Arthur Duske, Brooks

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Bros., speaking on "Garment Manufacturers Utilizing Minimum Care Fabrics"; Dr. John H. Dillon, director, Textile Research Institute, Princeton, N. J., speaking on "Relationship of Fiber Properties to the Development of Minimum Care Fabrics"; J. B. Goldberg, chemical engineer and consultant to the textile industry, speaking on "The Fabric Engineering Aspect of Using Man-Made Fibers in the Minimum Care Fabrics"; and Julius Hermes, vice-president, Fontaine Converting Co., speaking on "Finishing Fabrics of Man-Made Fibers for Minimum Care."

Conference On Gravitation In Physics

A. H. Bahnson Jr.

Several years ago Agnew H. Bahnson Jr., president of the Bahnson Co., Winston-Salem, N. C., spurred by his interest in problems connected with the gravitational area of physics, initiated the idea of establishing a corporate foundation for gravitational research. To this end the Institute of Field Physics Inc., was established in 1953 at the University of North Carolina to encourage and further knowledge in this important science. The foundation has been headed by Dr. Bryce S. DeWitt since its establishment. From January 18 to 23 this year the first international conference on quantizing General Relativity to be held in the U. S. was in session in Chapel Hill.

Designated the "Conference on the Role of Gravitation in Physics," it was sponsored by the Institute of Field Physics of the University of North Carolina. The conference was planned as a "working session" among the scientists actively studying topics related to the gravitational field. Most of the sessions were restricted to participants and the number of visitors was limited. The conference attracted world-wide interest and was attended by scientists from this country and abroad.

A Round-Up Of A.A.T.C.C. Activities

The first volume of *The Colour Index*, published jointly by the American Association of Textile Chemists & Colorists and the Society of Dyers & Colourists (Great Britain), has been shipped to subscribers in the U. S. from the A.A.T.C.C.'s headquarters in Lowell, Mass. *The Colour Index* is a four-volume authoritative record of names, manufacturers, methods of applications, fastness properties, established usages, reactions, etc., for about 5,000 dye entities and 25,000 commercial dye and pigment names. The index has been several years in the compilation and printing, and is the second edition published.

George P. Paine, executive secretary of the A.A.T.C.C., reported to officers and councilors of the association, at the first 1957 council meeting held recently in New York, that later volumes of *The Colour Index* are expected to be available as follows: Volume II, about April 1957; Volume III, about September 1957; Volume IV, March 1958.

* * * *

George O. Linberg, vice-president of Synthron Inc., Ashton, R. I., new president of the A.A.T.C.C., presided at his first council meeting Jan. 18, at the Statler Hotel and introduced new councilors from the association's 14 local sections.

Also installed in a new officer's position at this council meeting was Roland E. Derby, president of Textile Aniline & Chemical Co., who assumed the post of association treasurer. Mr. Derby replaces Albert E. Sampson of National Aniline Division, Allied Chemical & Dye Corp., a charter member of A.A.T.C.C., who has been association treasurer for many years. Mr. Sampson retired from the treasurer's post as of Jan. 1.

Former President Raymond W. Jacoby, chairman of the Perkin centennial committee, reported that the book of proceedings of the centennial, which will include all papers presented at the week-long celebration last September, would probably be distributed to registrants about April 1.

Dr. Walter M. Scott, chairman of the council's publications committee, reporting for Prof. Henry Rutherford, chairman of the textile education committee, said that work on a proposed textile education brochure was proceeding and a further report would be made at the council's meeting March 29.

On a motion by Carl Z. Draves of General Dyestuff Co., chairman of the A.A.T.C.C. intersociety relations committee, the council voted to withdraw the association from the consumer panel of the American Standards Association, since few matters concerning textiles come before the panel, and A.A.T.C.C. is, in any case, not authorized to vote on consumer standards.

* * * *

In his first public address since becoming association president, George Linberg was the featured speaker at the recent meeting of the Piedmont Section in Greenville, S. C. He told the meeting that the textile industry has "a big job of public relations to do both inside and outside our industry to regain the recognition we have lost."

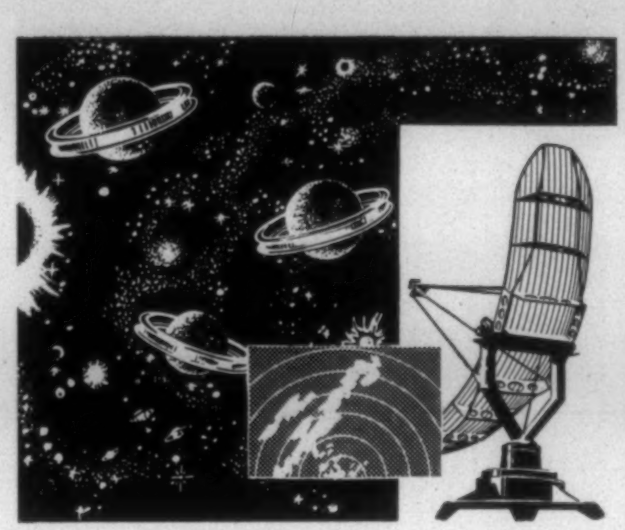
He stated: "We have a long way to go to catch up with electronics and plastics, to name only two of the progressive industries. I think the reason we are lagging behind is that we have not done much about it."

"The shift of the center of gravity of the textile industry to the South," Mr. Linberg said, "has placed increasing responsibilities on your shoulders for projecting association policy. Much of our future is dependent on your imagination and vision. . . . You have taken the leadership in the textile education committee. This activity is vital to our industry and to our association. I am hopeful that our association can make a real contribution to awaken a consciousness of both high school students and their parents of the many fine opportunities in our industry."

1956 Rayon And Acetate Production Off 9%

United States production of rayon and acetate yarn and staples during 1956 totaled 1,147,900,000 pounds, a decline of nine per cent from the 1,260,700,000 pounds produced in 1955, according to the annual presentation of man-made fiber statistical data by the *Textile Organon,* bulletin of the Textile Economics Bureau Inc. Output of all rayon and acetate products declined in 1956 from the previous year with the exception of rayon staple+tow which rose one per cent. Decreases in other products ranged from one per cent for acetate staple+tow to 16 per cent in acetate filament yarn production. High tenacity rayon yarn output fell 14½ per cent and regular+intermediate tenacity rayon yarn declined by eight per cent.

Producers' shipments of rayon and acetate totaled 1,126,-



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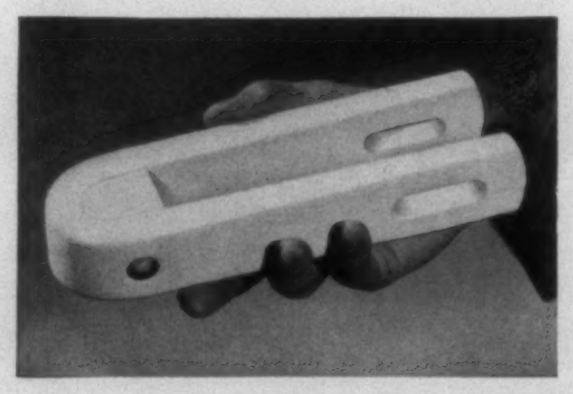

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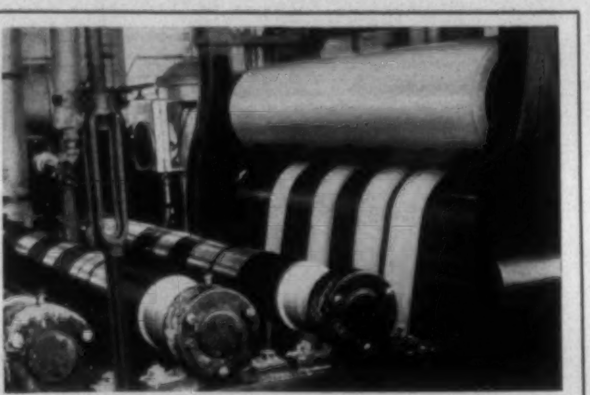

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800,000 pounds last year compared with 1,261,900,000 pounds in 1955, a decrease of 135,100,000 pounds or 10½ per cent. With shipments off somewhat more than output, producers' stocks at the end of 1956 rose to 107,500,000 pounds, a figure 21,100,000 pounds or 24½ per cent higher than the 86,400,000 pounds held at the end of 1955.

Total man-made fiber production in the U. S. during 1956, according to the *Organon,* was 1,644,700,000 pounds, a decline of four per cent from the all-time record of 1,715,800,000 pounds produced in 1955. The decline in rayon and acetate production was offset in part by increased output of textile glass fiber and the non-cellulosic fibers. Textile glass fiber production in 1956 totaled 96,900,000 pounds, an increase of 28 per cent over the previous record of 75,800,000 pounds in 1955. Non-cellulosic fiber production in 1956 rose to 399,900,000 pounds, 5½ per cent over 1955. There was a small decline of 1,400,000 pounds or one-half of one per cent in filament yarn output, and a 22,000,000-pound or 21 per cent increase in non-cellulosic staple+tow.

On a quarterly basis, the fourth quarter 1956 showed a record output of 27,400,000 pounds of textile glass fiber, the largest quarterly figure on record and one representing an annual production rate of 110,000,000 pounds. Similarly, fourth-quarter 1956 output of non-cellulosic yarn set a new record at 74,500,000 pounds, a gain of 3½ per cent above the previous record reached in the fourth quarter 1955. Fourth-quarter 1956 output of non-cellulosic staple+tow at 34,700,000 pounds also set an all-time high, exceeding by one per cent the previous record established in the fourth quarter 1955.

Preliminary estimates by the *Organon* indicate that 1956 production of rayon and acetate in all countries of the world reached a new record level of 5,215,000,000 pounds, an increase of four per cent over the previous record of 5,017,000,000 pounds set in 1955. The indicated 1956 production of rayon and acetate filament yarn is 2,225,000,000 pounds, a decline of three per cent from the record 2,296,000,000 pounds produced in 1955. Conversely, the *Organon* points out, the upward trend in world rayon and acetate staple+tow output, evident since World War II, has continued. The preliminary 1956 total of 2,990,000,000 pounds would set a new record ten per cent more than the 1955 record output of 2,721,000,000 pounds.

U. S. output of rayon and acetate filament yarn declined 115,500,000 pounds or 13½ per cent from 1955, while in the majority of foreign nations output of these yarns increased to an ex-U. S. total of 1,475,400,000 pounds, a gain of three per cent. This shift left the U. S. with 33.7 per cent of total world rayon and acetate filament yarn output compared with 37.7 per cent in 1955. The production of rayon and acetate staple+tow in this country increased slightly over 1955 but did not keep pace with the outstanding gains made in Japan, Italy and Western Germany. The U. S. output was up 2,700,000 pounds or one per cent over 1955, while production in the rest of the world rose 266,300,000 pounds or 11½ per cent. The U. S. share of total world rayon and acetate staple+tow declined from 14.5 per cent in 1955 to 13.3 per cent in 1956.

The *Organon* notes that the total available supply of rayon and acetate in the U. S. last year was 1,328,000,000 pounds, a figure 13 per cent less than the supply in 1955. It consisted of 1,147,900,000 pounds produced, plus producers' beginning stock of 86,400,000 pounds and estimated imports of 93,700,000 pounds. The decline in supply resulted from a nine per cent drop in production together with a notable decline in imports. The latter amounted to 174,400,000 pounds in 1955.

The *Organon* tabulation of rayon and acetate output by product shows that output of high tenacity rayon yarn declined from 432,700,000 pounds in 1955 to 370,500,000 pounds in 1956 or by 14 per cent; regular+intermediate tenacity rayon yarn from 202,300,000 to 186,300,000 pounds or eight per cent; acetate yarn from 230,100,000 to 192,800,000 pounds or 16 per cent; and total rayon plus acetate yarn from 865,100,000 to 749,600,000 pounds or 13½ per cent. Rayon staple+tow production in 1956 at 341,000,000 pounds was up one per cent compared with the 337,800,000 pounds produced in 1955. Acetate staple+tow at 57,300,000 pounds in 1956 was off one per cent from the 57,800,000 pounds of 1955.

The *Organon's* estimate of the 1956 available supply of rayon staple+tow is 430,600,000 pounds comprising production of 341,000,000 pounds less exports of 2,100,000 pounds and plus imports of 91,700,000 pounds. The supply available, therefore, was 15½ per cent below the record supply of 509,500,000 pounds available in 1955. For acetate staple+tow, available supply last year was 54,200,000 pounds which included production of 57,300,000 pounds less exports of 3,100,000 pounds; this was virtually the same as the 54,100,000 pounds available in 1955.

The *Organon* compilation of filament yarn shipments by trade shows that deliveries to all trades declined from 1955 levels except for exports, where shipments rose 8½ per cent. The declines by trade were as follows: hosiery 29½ per cent; circular knitting 9½ per cent; warp knitting 31 per cent; broad weaving 12½ per cent; narrow weaving 16 per cent; miscellaneous uses 2½ per cent; and tires and related uses 17 per cent.

Of a total of 382,000,000 pounds of rayon and acetate staple+tow shipped to domestic consumers in 1956, 242,000,000 pounds or 63½ per cent were delivered to cotton system spinners. This amount was eight per cent less than in 1955. Shipments for carpets and rugs continued to increase in 1956 and reached 84,000,000 pounds, a gain of 6,000,000 pounds or 7½ per cent over the previous year. As recently as 1952, only 6,000,000 pounds of domestic producers' cellulosic staple+tow was shipped to the carpet and rug trade. Deliveries to woolen and worsted spinners totaled 10,000,000 pounds, about the same as in 1955.

The *Organon* reports that U. S. imports of rayon staple (possibly including some acetate staple) in November totaled 5,698,000 pounds, a decline of 16 per cent from the October total. Western Germany continued as the major supplier with shipments of 1,564,000 pounds or 27½ per cent of the monthly total. For the first 11 months of 1956, rayon and staple imports amounted to 81,634,000 pounds or about half as much as the 162,774,000 pounds imported

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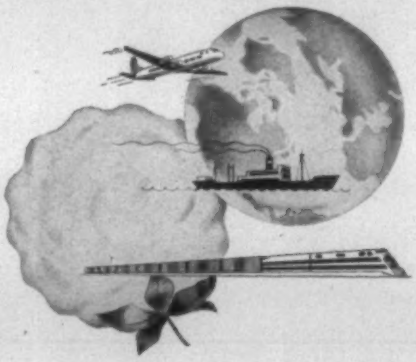

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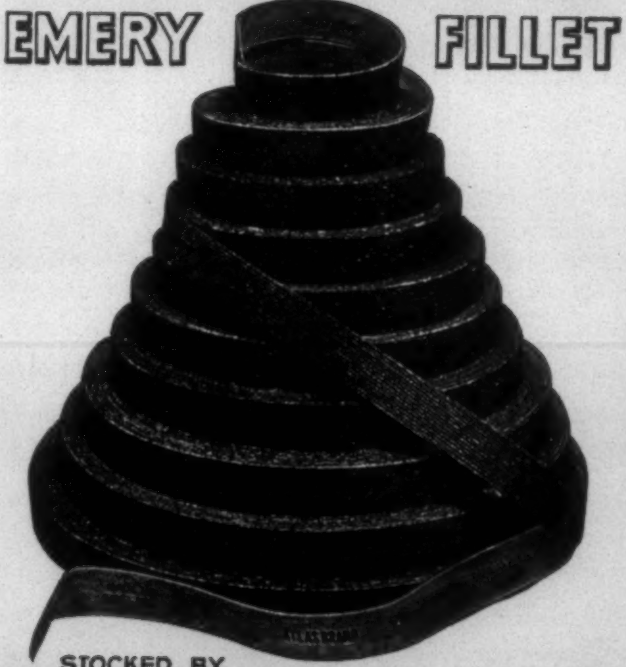

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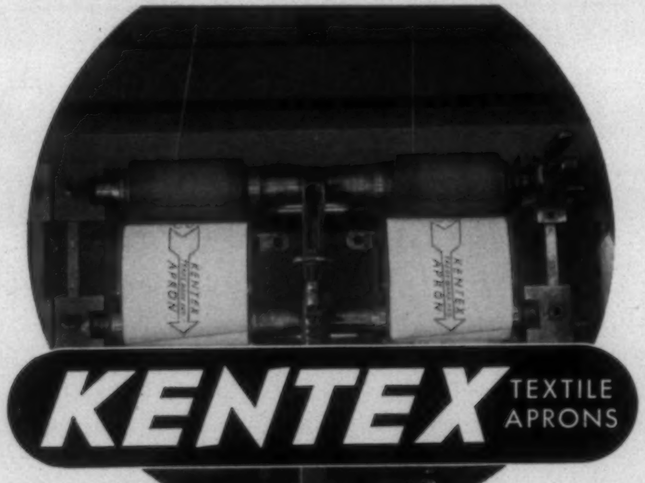

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in the corresponding period of 1955. During the 11-month period, West Germany was the principal supplier with 27 per cent of the total, followed by France with 19 per cent, Italy 10½ per cent, Austria eight per cent, Cuba, the United Kingdom and Switzerland 7½ per cent each, Norway five per cent and Belgium and Sweden four per cent each.

Cotton Finishing Off Slightly In 1956

At last month's annual meeting of the National Association of Finishers of Textile Fabrics, it was estimated that the yardage processed in the cotton finishing industry during 1956 amounted to 7,879,000,000 linear yards. This constitutes a 1½ per cent drop from 1955 when 7,997,000,000 yards of cotton were finished.

This report was made by Joseph E. Hoesl, N.A.F.T.F. secretary and treasurer at the association's gathering at the Waldorf-Astoria Hotel in New York City. "The cotton finishing industry, particularly dyers and printers of cotton goods, ran into trouble early in 1956 when production dropped off faster than usual in the first quarter and despite a few short spurts during the remainder of the year did not achieve the production rate of 1955," he pointed out.

"Total production for the year of dyed and printed goods is estimated to be about eight per cent under the peak levels of 1955," he continued. "It was a year of mixed trends . . . Whereas dyed and printed goods decreased, the decline in volume was offset substantially by a gain in bleached and white finished goods estimated to be almost nine per cent over 1955. This is the third consecutive year bleached goods have registered an advance; however, the level of production has not yet exceeded the peak year of 1947 when 3,616 million yards were bleached and white finished. Output of the other finished types in 1956, plain dyed and printed, is substantially above the 1947 rate. For the first time in five years printed cotton goods, for example, have not shown an increase over the previous year."

In an election of officers, last year's entire slate was returned for the coming year. This includes J. Marshall Cole of Cold Spring Bleachery, Yardley, Pa., president; Lawrence Marx Jr., Clearwater (S. C.) Finishing Co., and George E. Sinkinson, Sayles (R. I.) Finishing Plants Inc., vice-presidents; and Mr. Hoesl, secretary-treasurer.

Members of the executive committee elected to serve a one-year term expiring January 1958 include Robert Bendheim, Rock Hill (S. C.) Printing & Finishing Co.; James Harrell, Delta Finishing Co., a division of J. P. Stevens & Co., Wallace, S. C.; Homer Carter, Pepperell (Ala.) Mfg. Co.; Gordon Coles, Fairforest Co., Spartanburg, S. C.; and William F. Robertson, Riegel Textile Corp., Ware Shoals, S. C. Elected to serve a three-year term expiring January 1960 were Sydney M. Cone Jr., Cone Mills Corp., Greensboro, N. C., and Robert Amory, Grace (S. C.) Bleachery, Springs Cotton Mills.

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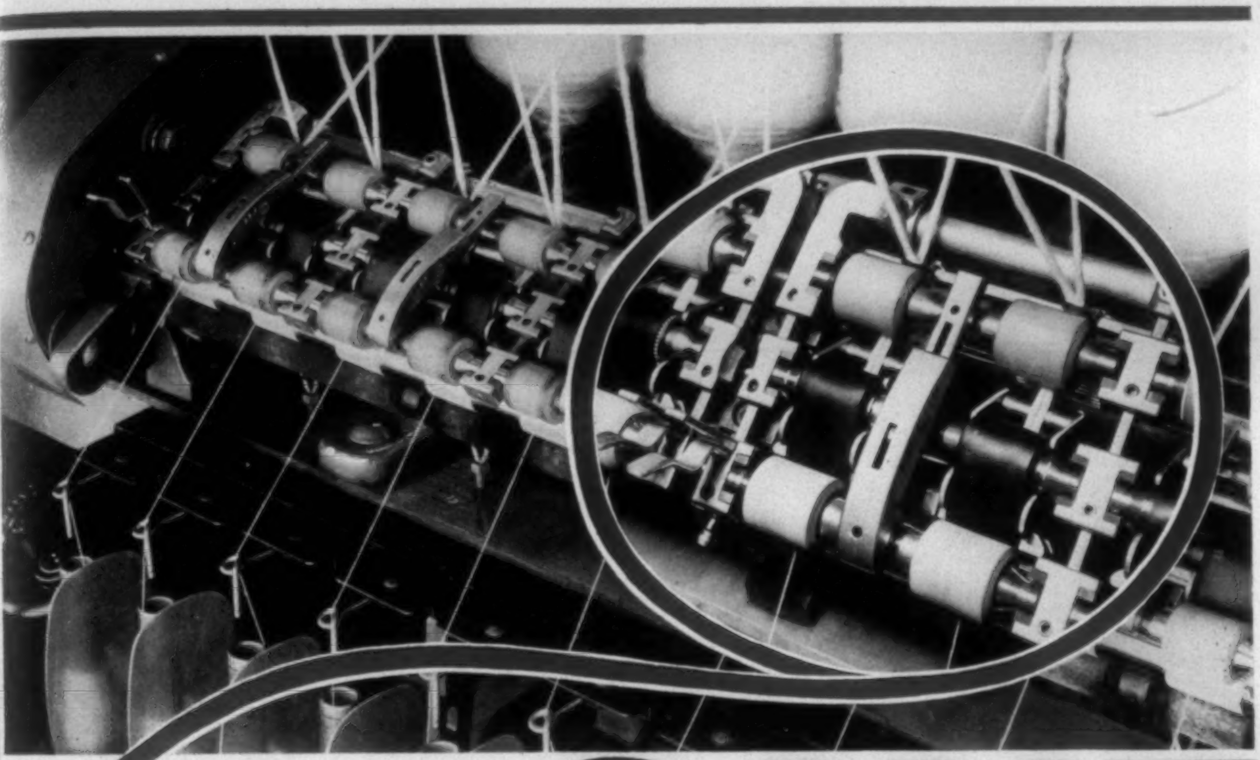

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